1 BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION 2 COMMISSION 3 WASHINGTON UTILITIES AND ) TRANSPORTATION COMMISSION, ) DOCKET NO. UT-941464 4 ) Complainant, ) VOLUME 5 5 ) ) Pages 524 - 824 vs. 6 ) U S WEST COMMUNICATIONS, INC., ) 7 ) Respondent. ) 8 -----) TCG SEATTLE and DIGITAL DIRECT ) DOCKET NO. UT-941465 9 OF SEATTLE, INC., ) ) 10 Complainant, ) ) 11 vs. ) ) 12 U S WEST COMMUNICATIONS, INC., ) ) 13 Respondent. ) -----) 14 15 A hearing in the above matter was held 16 at 8:30 a.m. on June 21, 1995, at 1300 South Evergreen 17 Park Drive Southwest, Olympia, Washington before 18 Chairman SHARON L. NELSON, Commissioners RICHARD 19 HEMSTAD, WILLIAM R. GILLIS and Administrative Law 20 Judge LISA ANDERL. 21 22 23 24 Cheryl Macdonald, CSR 25 Court Reporter

1 BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION 2 COMMISSION 3 TCG SEATTLE, ) ) Complainant, 4 ) ) 5 vs. ) ) 6 GTE NORTHWEST INCORPORATED, ) ) 7 Respondent. ) -----) DOCKET NO. UT-950146 8 GTE NORTHWEST INCORPORATED, ) ) 9 Third Party Complainant, ) ) 10 vs. ) ) 11 U S WEST COMMUNICATIONS, INC., ) ) 12 Third Party Respondent. ) -----) 13 ELECTRIC LIGHTWAVE, INC., ) ) Complainant, ) DOCKET NO. UT-950265 14 ) 15 vs. ) ) 16 GTE NORTHWEST INCORPORATED, ) ) 17 Respondent. ) -----) 18 19 20 21 22 23 24 25

The parties were present as follows: 1 U S WEST COMMUNICATIONS, by EDWARD SHAW, 2 MOLLY HASTINGS, WILLIAM O'JILE, DOUGLAS OWENS, Attorneys at Law, P.O. Box 21225, Seattle, Washington 3 98111 4 WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION STAFF, by STEVEN W. SMITH and GREGORY 5 TRAUTMAN, Assistant Attorneys General, 1400 South Evergreen Park Drive Southwest, Olympia, Washington 6 98504. 7 FOR THE PUBLIC, DONALD TROTTER, Assistant Attorney General, 900 Fourth Avenue, Suite 2000, 8 Seattle, Washington 98164. 9 AT&T, by SUSAN D. PROCTOR, Attorney at Law, AT&T Law Department, Suite 1775, 1875 Lawrence 10 Street, Denver, Colorado 80202. 11 TCG SEATTLE and DIGITAL DIRECT OF SEATTLE INC., by DANIEL WAGGONER and GREGORY KOPTA, Attorneys 12 at Law, 1501 Fourth Avenue, Suite 2600, Seattle, Washington 98101. 13 WITA, by RICHARD A. FINNIGAN, Attorney at 14 Law, 1201 Pacific Avenue, Suite 1900, Tacoma, Washington 98402. 15 ELECTRIC LIGHTWAVE, INC., by ARTHUR A. 16 BUTLER, Attorney at Law, 601 Union Street, Suite 5450, Seattle, Washington 98101-2327 and ELLEN 17 DEUTSCH, Attorney at Law, 8100 NE Parkway Drive, Suite 200, Vancouver, Washington 98662-6401. 18 TRACER, by STEPHEN J. KENNEDY, Attorney at 19 Law, 601 Union Street, Suite 5450, Seattle 98101-2327. 20 MCI TELECOMMUNICATIONS CORORATION and MCI METRO, by SUE E. WEISKE, Senior Attorney, 707 17th Street, Suite 3900, Denver, Colorado 80202 and CLYDE 21 H. MacIVER, Attorney at Law, 4400 Two Union Square, 22 601 Union Street, Seattle, Washington 98101-2352. DEPARTMENT OF DEFENSE/FEDERAL EXECUTIVE 23 AGENCIES, by ROBERT A. GANTON, Trial Attorney, 901 N 24 Stuart Street, Suite 713, Arlington, Virginia 22203

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APPEARANCES (CONT.) SPRINT, by LESLA LEHTONEN, State Regulatory 2 Attorney, 1850 Gateway Drive, 7th Floor, San Mateo, California 94404-2467 INTEREXCHANGE ACCESS COALITION, by BRAD E. 4 MUTSCHELKNAUS, Attorney at Law, 1776 K Street Northwest, Washington DC 20006. GTE NORTHWEST, Inc., by RICHARD POTTER, 6 Attorney at Law, 1800 41st Street, Everett, Washington 98201. MFS INTELENET OF WASHINGTON, INC., by 8 RICHARD M. RINDLER, Attorney at Law, 3000 K Street Northwest, Suite 300, Washington, DC 20007 

1				INDEX			
2	WITNESSES:	1	D	С	RD	RC	EXAM
3	WILCOX			529	663	679	653
4	FARROW	6	99	703	806	819	804
5	PURKEY	8	23				
6	EXHIBITS:	MARKE	П	ADMITTED			
7	C-55 C-56	566 566		586 586			
8	57	575		586			
9	58 C-59	588 588		757 757			
10	C-60 C-61	588 588		757 757			
11	C-62 C-63	588 588		640			
12	C-64 C-65	588 588		763 764			
	C-66 C-67	588 588		609			
	68 69	588 588		627 604			
	C-70 C-71	588 588		613 615			
	T-23	500		702			
16	24 - 28 C-29			702 702			
17	т-43 С-44			702 702			
18	C-45 72, 73	822		702 822			
19	T-74 75	822 822		824 824			
20	C-76	822		824			
21	RECORD REQ 12		PAGE 531				
22	13		533	3			
23	14 15		538 545	5			
24	16 17		721 747				
25	18		792	2			

1 PROCEEDINGS 2 JUDGE ANDERL: Let's be back on the record. 3 Today is June 21st, 1995. We are reconvened in docket 4 UT-941464 et al., and we'll begin this morning with 5 Mr. Trautman's cross of Dr. Wilcox. 6 Whereupon, 7 BARBARA WILCOX, 8 having been first duly sworn, was called as a witness 9 herein and was examined and testified as follows: 10 11 CROSS-EXAMINATION 12 BY MR. TRAUTMAN: 13 Q. Good morning. Good morning. 14 Α. 15 Do you have your rebuttal testimony with Q. 16 you? Yes, I do. 17 Α. Could you please turn first to page 12, and 18 Q. 19 starting at the bottom of page 12 and then it goes on 20 to page 13, you contend that all IXCs use all of the 21 different switched access transport options, and then 22 later on page 13 on the top paragraph, the last 23 sentence you state, "I have inspected recent 24 interstate billing data for Washington under the new 25 transport structure, and I find that all sizes of

1 carriers in Washington are indeed utilizing all of the 2 transport options." Do you see that testimony? 3 Α. Yes, I do. Did you perform any analysis of that data 4 Q. that shows the amount of each local transport option, 5 6 that being tandem switch, DS1 or DS3 that has been purchased by the IXCs, classified by size, small, 7 medium or large? 8 I don't know if I would call it analysis. 9 Α. 10 I have inspected those data by size of carrier. Have you done any -- what do you mean by 11 Q. you've inspected by size and carrier? 12 I have reviewed the data. I've looked at 13 Α. the quantities purchased by each of the probably four 14 largest carriers operating in the state of Washington, 15 and then the remaining carriers lumped together just 16 17 in a category and have inspected the quantities of each of those types of transport that they purchased 18 19 up to -- I can't recall the exact month, but, say, the first four or five months of this year. 20 21 Have you entered that analysis into the Ο. 22 record? 23 No, I have not. Α. 24 MR. TRAUTMAN: We would like to make a 25 record request for the analysis that Ms. Wilcox has

1 done showing the proportion of use of the various transport options by IXCs, classified by carrier. 2 3 Α. Those data will be proprietary to the carriers involved just so that you're aware of that. 4 5 JUDGE ANDERL: That will be record б requisition No. 12. 7 (Record Requisition 12.) 8 Q. In doing your analysis, did you group the IXCs into the different size categories, and if so by 9 10 what measure? 11 Α. What I did was look at four carriers individually, as I said, the four who I believe are 12 13 the largest carriers operating in the state, and then I had the data lumped together for all other carriers 14 separating out the end users who also purchase access 15 16 in the state of Washington so that they would not be 17 lumped in with the small interexchange carriers. 18 Q. Are you referring to a specific exhibit 19 right now in making your response? 20 Α. No. No, I'm not. I'm referring to the 21 data that I used as the basis of the statement that I 22 have in my testimony. And you used -- which four carriers were 23 Q. 24 they? 25 They were AT&T, MCI, Sprint and LDDS. Α.

And did your analysis determine or estimate 1 Q. 2 the proportion of the DS3 transport purchase by the 3 IXCs of the different sizes relative to the other 4 transport options? 5 No, I did not carry through with that kind Α. 6 of an analysis. 7 Ο. So you would have no results from that kind of analysis? 8 9 That's correct. Α. 10 Ο. Turning to your Exhibit -- it's BMW-6 in 11 the rebuttal, and I guess it would be 52. Have you 12 provided the backup data to that exhibit? 13 Α. These are data that are contained within 14 reports that U S WEST makes to the FCC quarterly, and if I remember correctly, I believe that those reports 15 16 have been supplied in response to a data request, but 17 I couldn't be sure of that. 18 Q. To a data request of staff? 19 Α. I don't remember. 20 If it has not been provided we would like Ο. 21 to make a record request for that. If it has been 22 obviously we can get the information. 23 JUDGE ANDERL: Okay. That would be No. 13. 24 Can you just briefly state what it is you want again. 25 MR. TRAUTMAN: It would be the backup data

1 to Exhibit 52 which is BMW-6 rebuttal.

2 JUDGE ANDERL: Thank you.

3 (Record Requisition 13.)

4 Q. And staying with that exhibit, is that data 5 for interstate access purchased in Washington or in 6 U S WEST's 14 state territory?

7 A. What's portrayed in this exhibit is all 148 states of U S WEST territory.

9 Q. And in the third line or phrase underneath 10 table 1 there's a statement that says "the data was 11 adjusted to remove effects of traffic growth and any 12 independent rate changes." Can you tell us 13 specifically how that was done?

Those are adjustments that the FCC asks 14 Α. each of the reporting companies to make at the time we 15 16 prepare the reports to send to the FCC. And so the 17 data that appears on the FCC report itself has already had that adjustment made to it, and it's an adjustment 18 19 -- to my understanding it adjusts for growth in minutes of use that take place during the year that's 20 being compared, and also adjusts for differences in 21 22 revenues that could be attributed to the fact that the 23 rates had changed during that time period. I'm not 24 familiar enough with the details of the calculations 25 to describe them to you today.

Q. Could you turn now to Exhibit C-49,
 confidential Exhibit BMW-3 of your rebuttal. And in
 this exhibit you have provided a table that compares
 U S WEST DS1 and DS3 service rates with those of other
 companies; is that correct?

6 A. That's correct.

Q. Without revealing the specific rates shown
8 in the table, is it true that the services being
9 compared are DS1 and DS3 private line services and not
10 switched access transport services?

11 A. With the exception of the rate that's shown 12 for U S WEST, which is both our rate for private line 13 service and our proposed rate for switched access 14 transport in this case, that would be a true 15 statement.

Q. Would you agree that the competitors shown
in the table are not now providing competitive
switched access local transport services because they
cannot connect to the company's switched access
services until expanded interconnection arrangements
have been approved by the Commission in this
proceeding?
A. That would be a true statement for
intrastate. I would note that expanded

25 interconnection has already been approved by the FCC

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1 for interstate.

2 Q. But not for intrastate?

3 A. That's correct.

Q. And is it correct that the U S WEST rates
shown are the company's current intrastate private
line rates which you are proposing to mirror for
switched access transport?

8 A. Yes.

9 Without naming particular customers, what Ο. 10 types of customers generally are purchasing U S WEST's intrastate DS3 and DS1 private lines in Washington? 11 12 Α. I'm not familiar with the customers who are 13 currently purchasing private line. Would you know whether they would be 14 Q. manufacturers, large users, banks? 15 That would be reasonable to assume that 16 Α. 17 they would be. Do you know that or are you just guessing? 18 Q. 19 Α. I don't know that. 20 Can you estimate what percentage of these Ο. circuits are being purchased by IXCs? 21 22 Α. I don't have that information. 23 Q. Could you tell us what percentage of the 24 company's switched access services sold in Washington 25 are purchased by an entity other than an IXC?

A. For switched access, the preponderance of
 the service is purchased by IXCs. I don't know the
 ratio for private line.
 Q. But would you know -- again, would you know
 what percentage of gwitched access is purchased by

5 what percentage of switched access is purchased by
6 entities other than IXCs?
7 A. What percentage of switched access?
8 Q. Uh-huh.

9 A. I don't know off the top of my head. It's 10 a number that I could provide.

11 Q. You could estimate?

12 A. I would estimate that the vast majority of13 the switched access services are purchased by IXCs.

Q. Wouldn't you agree that the mix of customers for the company's intrastate switched access services is quite different than that for the intrastate DS1 and DS3 private line services?

18 A. I don't know.

19 Q. Would you accept subject to check that U S 20 WEST has a lower DS3 to DS1 price ratio for the zero 21 mile service than any of the competitors you have 22 identified?

23 A. I don't know, so, yes, subject to check.

Q. And would you accept that the same is true subject to check for the five-mile service?

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Yes, subject to check. 1 Α. 2 Ο. In the general rate case you're 3 recommending that the switched access rates be reduced 4 by 22 percent overall; is that correct? 5 Α. That's correct. Therefore, at the conclusion of the rate б Ο. 7 case you anticipate that the company's local transport 8 rates will be lower than the DS3 and DS1 rates shown 9 in this table; is that correct? 10 Α. At the conclusion of the rate case, is that 11 your question? 12 Q. Yes. 13 Α. No, that's not correct. You don't anticipate that the local 14 Q. 15 transport rates will be lower than the rates in this 16 table? No, not the DS3 rates. 17 Α. Or DS1? 18 Q. 19 Α. Or DS1. 20 Could you turn to page 22 of your rebuttal Q. 21 testimony. Looking at the top paragraph, the last 22 sentence, you state, "today, transport represents 42 23 percent of the total switched access charges. With 24 the proposed changes and assuming that access charges 25 are reduced as proposed in the rate case, transport

1 will become only 10 percent of the total." With that 2 in mind, can you provide a similar comparison of the 3 current and proposed percentages of total access 4 charges that will be constituted by local switching charges under the company's plan? 5 6 Α. I can provide those data, yes. 7 MR. TRAUTMAN: We would like to make a 8 record request for that data. 9 JUDGE ANDERL: That would be No. 14. 10 (Record Requisition 14.) Turning now to page 26 of your rebuttal 11 Q. testimony, and this concerns the parties' 12 13 recommendations for transport prices. On page 26 you contend that the parties' recommendations regarding 14 transport prices are inconsistent, and you claim that 15 16 because the other parties argue for both higher and 17 lower transport rates than proposed by U S WEST that 18 U S WEST rates must therefore be, quote, just right. 19 Do you see that testimony? 20 Α. Yes, I do. 21 But wouldn't you agree that in adopting the Ο. 22 recommendation of either Sprint or IAC, which you cite

22 recommendation of either Sprint or IAC, which you cite 23 on page 25, that this would mean that the contribution 24 levels in U S WEST'S DS1 local transport rates would 25 move closer to the contribution levels in the

1 company's proposed DS3 transport rates? 2 Α. That is the proposal that is being made by 3 Sprint and IAC. That is true. I don't agree with their proposal. 4 5 But you agree that that would be the result Q. б of the proposal? 7 Yes, I do. Α. And wouldn't you agree that Mr. Woods's 8 Q. recommendation which is also cited on page 25 would 9 10 mean that the contribution levels in DS1 and DS3 rates 11 would also move closer together? 12 Α. Yes, they would. And finally, would you agree that Dr. 13 Ο. Selwyn's recommendation by staff to double DS3 rates 14 or apply a surcharge to DS3 prices would also result 15 in a closer alignment of the contribution levels 16 contained in the company's DS1 and DS3 transport 17 18 prices? 19 Α. I don't know. I haven't analyzed the 20 effects of doubling the DS3 on contribution levels. 21 But certainly for the other two, which you Ο. 22 referenced as in -- in regard to contribution levels, those two proposals are certainly consistent in that 23 24 regard, correct? 25 Α. Yes.

1 Q. And assuming that Dr. Selwyn's also reached 2 the same result it, too, would be consistent in that 3 regard making that assumption; is that correct? If your assumption is correct, then yes. 4 Α. 5 Q. Could you turn page to pages 16 and 17 of 6 the rebuttal testimony. And this testimony refers to 7 an order of the FCC imposing a benchmark DS3/DS1 ratio 8 for interstate switched access local transport, and 9 you see at the top of page 17 you state, "I can find 10 no evidence that the Commission based its order on 11 DS3/DS1 benchmarks on differences between the two markets." Do you see that testimony? 12 Yes, I do. 13 Α. And is the FCC order you're referring to, 14 Q. is that the report and order and the formal notice of 15 16 proposed rulemaking in docket 91-213 that was released on October 16, 1992? Is that the order you're 17 18 referring to? 19 Α. I don't recall the exact date of the order. That sounds about right. 20 21 And when you refer to the two markets, do Q. 22 you mean the interstate special access and switched 23 access markets? 24 Yes, because that's what I understood Dr. Α. 25 Selwyn to be saying.

1 Q. Would you agree that the FCC stated that 2 the concern that motivated its imposition of a 3 benchmark for DS3 to DS1 rates of 9.6 to one -- so 4 that the ratios below that level would generally be suspended and investigated -- would you agree that the 5 6 FCC stated that its concern was the potential for, 7 quote, unreasonably disadvantaging small and medium IXCs who would purchase DS1 service? 8 MR. OWENS: If counsel has a copy of the 9 10 order, it might be appropriate to put it before the witness if he's going to cross-examine her on it. 11 12 MR. TRAUTMAN: I was intending to do that 13 if she was not familiar with --Would you like to have a copy of the order? Q. That would be helpful. 15 Α. MR. TRAUTMAN: May I approach the witness? 17 JUDGE ANDERL: Yes. Q. Could you refer to paragraph 52 of the order. And looking at that paragraph in the second sentence, do you see where the sentence that reads, "our concern in establishing a benchmark for transport 25 disadvantaging small and medium IXCs who would

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18 19 20 21 22 rates is primarily with those rate relationships at 23 the low end of the spectrum rather than the high end 24 because of the potential for unreasonably

1 purchase DS1 service"?

2 Α. Yes, I see that. And I would call 3 attention to the fact that they're talking about a 4 benchmark for initial rates only at the time that the 5 restructure is first implemented. б Q. Would you agree that the FCC also required 7 the LEC to apply only their shortest term special access rates and prohibited the application of volume 8 discounts to the initial transport rates? 9 10 Α. Yes, that's true. And the rationale for this was to mitigate 11 Q. the impact of a rate structure change on small IXCs 12 13 allowing a more gradual transgression to the new rate 14 transport structure and the new competitive conditions? This is in paragraph 54. It would be in 15 16 the third sentence? 17 Α. That is what the order says. I would add 18 also that in our proposal for Washington we also have 19 based our proposed DS1 and DS3 rates on the month to month rates, have not used the volume discount rates as 20

21 the basis.

Q. And you also see the reference on paragraph
41 of the order and this would be on page 70288, the
first full sentence at the top where the FCC stated,
"LECs have an incentive, however, to price direct

1 trunk transport service as low as possible and to 2 price the interconnection charge as high as possible." 3 Α. I see that sentence. Thank you. Could you turn to your Exhibit 4 Q. BMW-1 which is marked as C-47. Do you have that? 5 б Α. I do. 7 Ο. This exhibit presents your analysis of the 8 contribution that would be generated by the different transport options under the local transport 9 10 restructure; is that correct? Α. That's correct. 11 12 And can you explain the difference between 0. 13 the bars marked total service and those marked transport only? 14 Yes. The analysis here has been done in 15 Α. two different ways, and this is to highlight the fact 16 17 that when a customer buys transport associated with switched access they're not buying just the transport 18 19 alone. They're buying it together with the switching functions, and so I did perform the analysis in both 20 21 ways in order to keep that fact in front of us. The 22 total service analysis, what I did here, as indicated, 23 was I assumed -- used some assumptions about 9,000 24 minutes of use per voice grade circuit that are some 25 fairly standard assumptions that have been adopted by

1 the FCC and have been used in these kinds of analyses, 2 and compared the long-run incremental cost and the 3 ADSRC cost of the service for transport and switching 4 functions with the price that the customer would pay 5 for the total service transport plus the end office 6 switching under each of these different options. So 7 the black bars represent the contribution contained in 8 that total price for the transport plus the end office 9 switching function.

10 What that illustrates is, of course, what 11 everyone has been saying in this case is that there is 12 a lot of contribution in the switched access prices, 13 and that those bars are up -- in a very high range here, the second set of bars, the light-colored bars, I 14 isolated just the transport charges alone, left out the 15 16 end office switching function and left out the 17 contribution rate elements which are the carrier common 18 line and the interconnection charge, and there you can 19 see that for the transport portion of the rates, the 20 contribution levels are lower, that the prices are 21 closer to the long-run incremental cost for the 22 transport portion.

23 Q. For the direct trunk transport bars, what 24 mileage was assumed?

25

A. Let me just check.

00544

This is for a ten-mile circuit. 1 2 Have you provided the underlying data for Q. 3 this chart? No, I don't believe it's been provided. 4 Α. 5 MR. TRAUTMAN: We would like to make a 6 record request for that. JUDGE ANDERL: Okay. That would be record 7 8 requisition No. 15. And that's the underlying data 9 for C-47. 10 MR. TRAUTMAN: Yes. (Record Requisition 15.) 11 12 Q. I believe you indicated that you used ADSRC 13 costs to develop the chart? That's correct. 14 Α. Q. Rather than ASIC? 15 16 A. Yes. 17 Q. Are you familiar with the definitions of 18 TSIC, ASIC and ADSRC as presented by Mr. Farrow? 19 Α. I have read Mr. Farrow's testimony. I'm 20 not a cost expert. 21 Would you agree with Mr. Farrow that TS LRIC Ο. 22 -- actually I should have said TS LRIC -- represents 23 the total direct cost of a product or service? 24 Α. Yes. It is the total service long-run 25 incremental cost at a service or product level, which

1 in my understanding is a little different from when 2 you want to look at a group of products. 3 Q. Do you have Mr. Farrow's direct testimony available? 4 5 I don't have it in front of me. Α. 6 Q. Could you turn to page 6 of the direct 7 testimony on lines 21 to 22. Would you agree with the statement there 8 9 that total service incremental cost, TSIC, are defined 10 as the total direct costs of a product or service? Α. That is what Mr. Farrow's testimony says. 11 12 Do you agree with that testimony? Q. 13 Α. He's the cost expert. Would you agree that the company's ASIC 14 Q. 15 costs or TSIC are presented on a unitized basis? That is my understanding. 16 Α. 17 ο. Therefore, wouldn't the ASIC costs capture 18 all of the direct costs of a service or product? 19 Α. It's my understanding that they would at the product level, but they would not capture the 20 21 shared costs for a group of products that jointly use 22 the same facility. So turning to page 7 of Mr. Farrow's 23 Q. 24 testimony, and this is, I believe what you just 25 stated. ADSRC would include the direct costs plus,

1 quote, an average contribution to the shared service 2 group costs. Is that correct? 3 Α. That is Mr. Farrow's testimony, yes. So therefore, isn't it true that ASIC and 4 Ο. 5 not ADSRC is the correct basis for determining 6 contribution levels contained in rates since the ADSRC 7 already contains contributions beyond the direct cost of the service? 8 I don't agree with that statement, no. 9 Α. 10 Ο. And why not? The contribution analyses that I was 11 Α. performing concerned contribution to common costs, not 12 13 contribution to shared costs. And is this your opinion or is this the 14 Ο. opinion of Dr. Farrow -- of Mr. Farrow upon which 15 16 you're relying? 17 Α. I have relied upon Mr. Farrow to inform me of the appropriate cost basis to use for the 18 19 contribution analysis that I needed to perform. 20 Could you turn to page 28 of your rebuttal Ο. 21 testimony. And on lines 18 to 20 you have argued that 22 Mr. Lundquist comparison of the contribution levels for 23 local switching versus transport rate elements is 24 biased because, quote, he selects a few of the 25 transport elements to evaluate rather than looking at

00548 1 the transport charges as a whole. Do you see that 2 testimony? Yes, I see it. 3 Α. 4 Ms. Wilcox, when did the company provide to Ο. the Commission the cost studies for DS1 transport and 5 6 DS3 transport in this proceeding? 7 Α. I don't know. Would you accept subject to check that it 8 Q. was May 25? 9 10 Α. Subject to check. 11 And when was Mr. Lundquist's direct Q. testimony on behalf of staff filed? 12 I don't remember. 13 Α. Would you accept that it was April 17? 14 Q. 15 Yes, subject to check. Α. So therefore isn't it true that Mr. 16 Q. 17 Lundquist's could not have undertaken an analysis of 18 the DS1 and DS3 transport contribution levels for his 19 direct testimony because the company had not provided 20 the cost data necessary to do so? If that's true, that would be the case. 21 Α. 22 Q. Thank you. And now could you turn to page 23 34 of your rebuttal, and this testimony refers to the 24 interconnection charge. At lines 16 to 25 you oppose 25 Dr. Selwyn's recommendation to apply the

1 interconnection charge only to the access traffic that 2 is delivered through U S WEST's transport facilities 3 on the grounds that it would be costly to reprogram the IABS billing system. Do you see that testimony? 4 5 Α. Yes, I do. 6 ο. Do you have any estimate of the cost and 7 time required for the reprogramming of the IABS billing system to do this? 8 9 No, I do not. Α. 10 Ο. Could you get that information? That's not information that is quickly and 11 Α. easily obtainable. It would require some considerable 12 13 time and effort on the part of the programmers and the 14 people in charge of the billing system in order to come up with a quantification of the effort involved. 15 16 ο. Well, then how do you know that it would be 17 difficult and costly? 18 Just from my knowledge of the kinds of Α. 19 efforts that have been required for other changes to the IABS's billing system. It is a complex system. 20 21 There are a lot of rate elements that are billed 22 through it, and a very major effort was required to 23 transform this billing system to take into account the 24 local transport restructure in the first place, and of

25 course those changes were made to take into account the

1 interconnection charge since that had been ordered by 2 the FCC, but the way the system is set up now that 3 interconnection charge is applied to each switched 4 access minute of use, and it would take a major dismantlement, if you will, of the basic programming in 5 б the system in order to make a change in that. 7 Ο. But you have no data or studies that you've 8 done to support that assumption? 9 No specific numbers, no. Α. 10 Ο. None that you could provide? Α. 11 No. 12 Ο. You also have characterized the 13 implementation of a self reporting process, and this is the second option that Dr. Selwyn suggests, as, 14 quote, a costly labor-intensive process. Have you 15 estimated the cost that would be incurred under this 16 17 option? I have not attempted to quantify it. I'm 18 Α. 19 basing my statements on the fact that it would be a 20 manual process. It would be much more manual than the 21 process that we use today when we have self-reported 22 PIUs or percentage interstate usage that comes from the 23 carriers. That self-reporting has been in place for

22 PIUs or percentage interstate usage that comes from the 23 carriers. That self-reporting has been in place for 24 some years, probably since divestiture, and we now have 25 provisions programmed into the billing system for quick

1	and easy input of these self-reported numbers that feed						
2	into the programming itself. There's no such provision						
3	for inputting self reported numbers for something else						
4	such as what is being suggested here. Therefore, it						
5	would have to be an entire manual process of our						
6	service reps month by month, carrier by carrier, taking						
7	the self-report, doing a manual adjustment to that						
8	carrier's bill each month, and that's the reason why						
9	I'm saying it would be costly, labor-intensive.						
10	Q. But you've done no studies or have no data						
11	to support that?						
12	A. I have not attempted to quantify it, no.						
13	MR. TRAUTMAN: No further questions.						
14	JUDGE ANDERL: Thank you, Mr. Trautman.						
15	Ms. Proctor.						
16	MS. PROCTOR: Yes, thank you.						
17							
18	CROSS-EXAMINATION						
19	BY MS. PROCTOR:						
20	Q. Ms. Wilcox, just to follow up on those						
21	questions about the billing system. The IABS billing						
22	system is that billing system that U S WEST uses to						
23	bill the interexchange carriers for their access usage;						
24	is that correct?						
25	A. That's correct.						

1 Q. And is there any reason or does the -- I'm sorry, that's a multiple question. Does that billing 2 3 separate for any given IXC its interLATA and intraLATA 4 usage? 5 Α. No, it does not. 6 Ο. There's no reason from an access billing 7 point of view to differentiate? There's no difference in price? 8 Α. That's correct. 9 10 Ο. And also that bill wouldn't show the 11 difference between one plus dialing and 10 XXX dialing, 12 would it? I don't know. 13 Α. MS. PROCTOR: One preliminary statement 14 15 that I should make, Judge Anderl. On the record 16 request made by staff -- I'm sorry, it's No. 12. The 17 analysis of the usage by the various carriers, and Ms. 18 Wilcox indicated that that was information proprietary 19 to the carriers. It would be our position that that 20 is -- in our case AT&T's proprietary data and that U S 21 WEST has no authority to release that. We will be 22 happy to release it to staff, and I suppose we can 23 discuss that, but it would be our position that that 24 is information that is proprietary to us. 25 MR. OWENS: I was going to get into that on

1 redirect. 2 JUDGE ANDERL: Well, let's hold off and 3 talk about that then. In your testimony and just now you've 4 Q. stated that in your opinion the contribution 5 6 generated by access as a whole is too high; is that 7 correct? Α. Yes, that's correct. 8 9 And in fact in the rate case you have Ο. 10 proposed reductions to access rates; is that correct? 11 Yes, it is. Α. 12 Ο. In this case, however, the revenue to be 13 generated by the new proposed rates is almost exactly 14 the same as the revenues generated by the old rates; is that correct? 15 For the proposal in this docket, yes. 16 Α. So this docket does not propose any 17 Ο. 18 reduction in access charges? 19 Α. That's right. 20 And I believe you stated on page 33 that Ο. 21 the reason for that is that the company has to 22 consider its overall financial situation and any 23 exchanges to rates would need to be considered in the 24 rate case; is that correct? 25 Α. Yes, that's correct, and that's also in

1 recognition of the fact that U S WEST does have a 2 great need for an overall rebalancing of rates, not 3 only changes to the switched access rates but changes 4 to other rates as well. Of course U S WEST did just file for a \$9 5 Q. б million toll reduction; isn't that correct? 7 Α. I'm not familiar with the details of the 8 toll filing. Would you accept subject to check that U S 9 Ο. 10 WEST has indeed filed for a reduction approximating \$9 million in its toll revenues? 11 12 Α. Yes, subject to check. 13 Ο. So obviously the same concern for the overall financial situation of the company didn't 14 apply to that reduction; is that correct? 15 16 Α. I think our situation with our toll product 17 is not exactly the same with the switched access product, and with any decision that the company makes 18 19 regarding pricing there are a number of factors that 20 have to be weighed, and I would be confident that the 21 impact on the bottom line of the company of filing for 22 a toll reduction versus not filing for a toll 23 reduction would have been made before the decision was 24 made to reduce those prices. 25 Q. Would you agree that if U S WEST reduced

1 its access prices and if the interexchange carriers as 2 a result reduced their toll prices that that would 3 mean that all toll prices in the state could be 4 reduced? 5 Α. Could you restate that, please. 6 ο. Certainly. Which part didn't you 7 understand? I'm not quite sure I followed the logic. 8 Α. 9 Would you agree that if U S WEST reduced Ο. 10 its access prices and interexchange companies reduced 11 their toll prices that all toll prices in the state 12 could have come down with an access reduction? I guess I would agree that an access 13 Α. 14 reduction does set the stage or set up a situation in which toll prices can be reduced. 15 16 ο. And access prices have to be imputed into 17 the price floor for U S WEST's toll prices? 18 Α. Yes, they do. 19 Q. Intrastate access is growing at a fairly 20 rapid rate, is it not? 21 Α. I believe that's true. 22 Q. In fact U S WEST estimated that for 1994 as 23 a whole intrastate access revenues increased about 13 24 percent? 25 Α. I don't recall the number.

Q. If that number were in the U S WEST annual
 report you would accept that, would you not?

3 A. Yes.

4 Q. When you were discussing the comparison 5 that you made of the proposed prices to the costs of 6 providing access, you stated that you used the ADSRC 7 costs; is that correct?

8 A. That's correct.

And I believe you stated in your testimony 9 Ο. 10 that in the case of tandem switched transport the ADSRC costs are about three times the ASIC costs? 11 12 Α. I'm not remembering the exact number, but 13 if that's in my testimony then that would be correct. That's on page 6, line 24 of your rebuttal 14 Q. testimony. 15

16 A. Yes.

Q. So would it be fair to say that you had
done your analysis of the amount of contribution based
upon ASIC that the analysis might change dramatically?
A. It would change.

21 Q. In your testimony you referred to -- let me 22 just back up here. I want to make sure I understand 23 the prices that you've proposed here. There were a 24 set of prices originally filed by the company in 25 November, were there not?

1 Α. Yes, there were. 2 Q. And then you revised those when you filed 3 your testimony in February? 4 Α. Yes. 5 And then shortly after you filed your Q. 6 testimony you revised them again on February 16? 7 I believe the February 16 was simply a Α. correction of an error in the table, in the exhibit. 8 9 If you corrected an error, though, it might Q. 10 mean that the rate had changed in the sense that what a customer would see would be a new price? 11 12 Α. I believe that that change was simply to 13 bring my exhibit into consistency with the tariff page change that we had filed. 14 15 And then again in March, beginning of Q. March, you made some further revisions? 16 Yes, I did. 17 Α. And those were actual price changes, were 18 Q. 19 they not? 20 Α. Yes, they were. 21 And then finally in May in your rebuttal Ο. 22 testimony filed in May 31st you made some further changes in the prices? 24 It was filed on that date, but it actually Α. 25 was not filed in my rebuttal testimony. It was filed

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1 as amendments to my direct testimony, but yes, I did 2 file additional price changes on May 31st. 3 Q. Those were not in your -- oh, no, I'm 4 sorry. Those were corrections to your direct 5 testimony? 6 Α. Yes. They were amendments to my direct 7 testimony. So the final prices that we're talking 8 Q. 9 about here, are they now contained in Exhibit 7? That 10 would be BMW-6 from the direct testimony? 11 Α. Yes, they are. 12 Q. And which your customers have had for two 13 weeks? 14 They've had them since May 21st. Α. 15 Q. 20 days. When I say customers we're talking very 16 17 large customers, are we not? It's true that many of our carrier 18 Α. 19 customers are very large. 20 ο. In fact the carrier customers as a group 21 account for something like a third of U S WEST's 22 revenues, do they not? 23 Α. I don't know. 24 ο. You're the manager for intrastate access? 25 A. That's correct.

1 Q. But you don't know what percentage your 2 product generates of the company's revenues? 3 Α. Of the total revenues I don't have that in the top of my head, no. 4 5 I'm sorry. I wasn't asking for a specific Q. 6 number. I was just kind of looking at a ballpark. 7 I could check. I could find out but I Α. 8 don't have that information in my head, no. 9 Now, during the time that you were revising Ο. 10 these rates, I gather also from your testimony that 11 you were looking at some revised cost studies; is that 12 correct? 13 Α. That's correct. Now, when did you first have revised cost 14 Q. 15 studies? I really don't recall the dates at which I 16 Α. 17 had the various revised cost studies. How many revised cost studies are we 18 Q. 19 talking about? 20 MR. OWENS: Had you finished your answer? 21 I'm sorry, I thought you had. Ο. 22 THE WITNESS: Yes. How many revised cost studies are we 23 Q. 24 talking about? 25 Α. Well, there are several cost studies that

1 feed into the pricing of the restructured switched 2 access, and there are the studies for the high cap 3 services, the DS1, the DS3 services. There's a study 4 for the tandem switched transport. There's the study 5 for local switching. These are all separate studies, 6 so I'm not quite sure how many that adds up to, but 7 those are the various studies that I'm referring to. And how many versions of those studies are 8 Q. there? 9 10 Α. Versions of those studies? I'm not sure I understand the question. 11 12 Okay. I believe in your direct testimony Q. 13 you stated that you developed the November prices and then you looked at some cost studies so you revised 14 the prices and those were the prices you filed in your 15 16 direct testimony. Is that correct? 17 Α. Yes. In the time I filed my direct 18 testimony I had available to me some revised cost 19 studies that were not available to me in November. In 20 November when I formulated those prices for that filing, I was using older cost studies. 21 22 Q. And then were there -- you changed the 23 prices in March; is that correct? 24 Α. That's correct. 25 And at that time did you have yet another Q.

1 version of cost studies available to you?

2 A. At that point I had received a revision to 3 one of the cost studies. I believe it was the study 4 that has the tandem transmission and tandem switching 5 costs in it.

Q. And then when you revised the prices again7 in May, did you have yet another version of cost8 studies available to you?

Yes. That same study for tandem 9 Α. 10 transmission and tandem switching had received yet another revision which caused me to go back and 11 12 reevaluate. And I would add that I was paying 13 particular attention to the changes in the tandem switching and tandem transmission costs that I was 14 15 receiving because I am aware of the fact that this is 16 a transport option that is very important to some of 17 our smaller carriers, and I was looking, wanting to 18 make sure that I was not proposing prices for that 19 option that were out of line and that this is really 20 the basis for my willingness to adjust those prices 21 based on new cost studies.

Q. The final cost studies -- well, perhaps final is not a good word. The last version of the cost studies, are those costs summarized in Mr. Farrow's exhibit which has been -- which was marked

1 last night as C-29? 2 Α. I don't know. 3 MS. PROCTOR: Mr. Owens, could you put that 4 in front of her. 5 MR. O'JILES: What's the exhibit? MS. PROCTOR: C-29. It's BEF-6. 6 7 MR. WAGGONER: It's the one we made copies 8 of last night. 9 Do you have that in front of you now? Q. 10 Α. Yes, I do. 11 Are you able to verify that those are the Q. 12 costs that you were considering in your latest 13 revision to the access prices, transport prices? Yes, they are. 14 Α. 15 MS. PROCTOR: Could you also provide her a 16 copy of Mr. Farrow's previous version of this Exhibit 17 C-29? I'm not sure if that would really be the 18 exhibit because we substituted it. 19 JUDGE ANDERL: Is that the one? 20 MS. PROCTOR: I'm sorry. JUDGE ANDERL: Can you specify which 21 22 version of it? I think the version that was originally 23 Q. 24 filed had no date, and I would just like, if you could, 25 Dr. Wilcox, confirm that that original version contains

firm that th

1 the costs that you were considering in some of your 2 earlier price filings. 3 A. I don't have the earlier version of the 4 costs in front of me. 5 You just have the latest version. Q. MR. OWENS: Don't have it here. 6 7 JUDGE ANDERL: You don't have a copy of it 8 for her. 9 MR. OWENS: Not that I know of. JUDGE ANDERL: Does any counsel still have 10 11 an old version? 12 MR. MUTSCHELKNAUS: Previous version of it, 13 I probably do. 14 MR. BUTLER: One dated 2-10-59. 15 MR. WAGGONER: It's presumably the one that 16 was filed by U S WEST. 17 MR. MUTSCHELKNAUS: I have 4-27. 18 MR. OWENS: That's the one. 4-27. That's 19 the penultimate version. THE WITNESS: This is the latest version 20 21 that you've just given to me. (Indicating). 22 MR. KENNEDY: 2-10. JUDGE ANDERL: 2-10. 23 MR. BUTLER: And the newer one is 4-27. 24 25 MS. PROCTOR: I wanted her to have the old

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1 version. You were right. 2 MS. WEISKE: She wants the old one, not the 3 new one. 4 JUDGE ANDERL: Let's be off the record 5 while we figure this out. (Discussion off the record.) 6 7 JUDGE ANDERL: Let's be back on the record. 8 The witness has now been provided with the BEF-6 that 9 was originally filed. You had a question on that, 10 Ms. Proctor? 11 MS. PROCTOR: Yes. 12 Q. My question was could you verify that those 13 are indeed the costs that you were considering in your 14 earlier versions of the prices for transport? Let me check. 15 Α. Would you agree to accept that subject to 16 Q. 17 check? I believe that the costs that have just 18 Α. 19 been handed to me with the date 2-10 on it, I believe 20 those are the costs that I had available when I 21 amended the rates in March. 22 Q. But not previously? 23 Α. I don't know. 24 MS. PROCTOR: May I approach the witness? 25 JUDGE ANDERL: Yes.

00565 Dr. Wilcox, I've placed two exhibits in 1 Q. 2 front of you. If you could turn to the one that's 3 entitled Washington DS1 Private Line Transport Service 4 Recurring Cost Study April '95? 5 Α. Okay, I have it. 6 JUDGE ANDERL: Are these exhibits or --7 MS. PROCTOR: I just wanted to verify that 8 she's familiar with them and then mark them or I can 9 mark them first, whichever is your preference. 10 JUDGE ANDERL: If you're going to offer 11 this document as an exhibit, let's go ahead and 12 distribute it to everybody. MS. PROCTOR: Sure. 13 JUDGE ANDERL: I thought you were going to 14 15 ask her some questions without admitting the document. 16 If you have more than one proposed exhibit for this 17 witness why don't you go ahead and distribute them 18 all. 19 MR. OWENS: These would be confidential 20 exhibits, Your Honor. 21 JUDGE ANDERL: Don't hand them to anybody 22 who hasn't signed the protective order agreement. All 23 three of them or is it just two? 24 MS. PROCTOR: It's just two. 25 (Discussion off the record.)

JUDGE ANDERL: Let's be back on the record. 1 2 While we were off the record we marked two documents 3 as exhibits for identification. The Washington DS1 4 private line transport service recurring cost study is 5 Exhibit C-55 and the DS3 private line transport 6 service recurring cost study is C-56. Both of those 7 are dated April 1995. Go ahead, Ms. Proctor. (Marked Exhibits C-55 and C-56.) 8 9 Dr. Wilcox, are Exhibits C-55 and Exhibit Ο. 10 C-56 summaries of those cost studies that you had 11 available to you and considered in your latest pricing 12 proposal of May? I believe so, but I can confirm that if you 13 Α. like. 14 15 Would you please. If that's easy to do. Q. 16 Α. Yes, they are. Thank you. If you could turn in Exhibit 17 ο. 18 C-55 to page 8. That's actually -- it's entitled page 19 8. 20 Α. Is this the DS1 study? 21 ο. Yes. 22 Q. Now, when you're doing pricing you would 23 consider normally variations in costs in establishing 24 your prices, would you not? 25 Α. That is one of the inputs.

And without of course discussing the 1 Q. numbers here, what we have are cost elements that are 2 3 fixed and also varied per mile, in other words, 4 distance-sensitive; is that correct? 5 Α. That's correct. 6 Q. And in developing prices your prices of 7 course would reflect how a cost is caused, would they 8 not? In some cases they do. 9 Α. 10 Ο. So if a cost is, as we have here, a fixed cost, you would recover it in a fixed price? 11 12 That's the intent of the way that the cost Α. 13 results are displayed here on this report, yes. And I just perhaps -- fixed is probably not 14 Q. the correct word. That would be a nonrecurring 15 16 charge, typically? 17 Α. No. In this case. These are recurring 18 costs and they are in support of recurring charges. 19 The term fixed simply refers to the fact that it does not vary with distance. It's a fixed charge per 20 21 month. It's not multiplied by the miles. 22 Q. Okay. Now, in fact the cost as referred to 23 here is fixed, although we've got a breakdown here of 24 rate bands from zero to a thousand, the actual cost 25 doesn't vary, does it?

1 Α. Not very much. Not for the fixed portion. 2 And actually with the exception of one Q. 3 mileage band, even the per mile charge doesn't vary 4 very significantly, does it? 5 It all depends on what you call Α. 6 significant. 7 And those are the types of factors which Ο. typically you would take into account in determining 8 your pricing, would you not? 9 10 Α. That's one of the factors. In this 11 particular case I did not take it into account because the intent here was to price the direct trunk 12 13 transport for the switched service the same as the 14 prices for the equivalent private line service in order to avoid price anomalies, and this I believe is 15 16 consistent with the finding of this Commission in -- I 17 believe it was the term loop case where the indication 18 was that like services should be priced the same. 19 Q. So you're saying that cost was irrelevant in 20 setting these prices? It was not totally irrelevant. I checked 21 Α. 22 the costs to be sure that the prices met the criterion

23 of exceeding the price floor. I used costs as a price 24 floor.

25 Q. And according to the cost study the

1 appropriate price floor to use is the ASIC cost, so 2 that's what you looked at? 3 Α. In this case I looked at ADSRC as well as ASIC. Again, because of my need to be sure that the 4 5 service that I'm responsible for is also covering its 6 share of the shared costs for the group of services 7 that share the facilities. Dr. Wilcox, looking at the cost here, 8 Q. whether the ASIC or the ADSRC of the per mile -- the 9 10 cost per mile for the DS1. The price varies from 11 to \$17, doesn't it? 11 12 Α. I'm sorry, I don't keep all of those prices 13 in my brain so let me just look at them. That's certainly understandable. 14 Q. Yes, that's correct, for the per mile 15 Α. 16 charge. 17 Ο. So I think it's fair to say that this particular portion of access is certainly covering its 18 19 share of common costs, is it not? 20 Α. I cannot make a judgment about the common costs from this. I can make a judgment about the 21 22 shared residual costs, and yes, it is covering those. 23 When you were looking at these costs and Q. determining whether the prices that you were proposing 24 25 indeed made a contribution, did you make any analysis

1 as some of the other parties in the case have done of 2 the contribution levels? 3 Α. Yes, I have. And have you produced that anyplace? 4 Q. 5 Yes. Yes. My exhibit, the first exhibit Α. 6 attached to my rebuttal testimony, which is C-47 7 presents that analysis. And that's the record request that staff 8 Q. 9 made earlier for that backup data. And that of course 10 compared ADSRC not ASIC? 11 Α. This analysis is based on ADSRC, yes. 12 Q. Which is sometimes three times ASIC? In some cases. 13 Α. Could you turn to your Exhibit 7. That was 14 Q. 15 BMW-6 in your direct. Α. 16 Okay. I'm not quite sure if it's numbered 17 Ο. 18 consecutively. I'm looking at a spreadsheet. And I 19 think it summarizes. It's entitled switched access 20 price worksheet. It might help if I could see what you're 21 Α. 22 looking at. (Indicating). About four pages into the 23 Q. 24 documents. 25 MR. OWENS: What documents, Counsel?

00571 JUDGE ANDERL: What document? Exhibit 7 1 2 only has one page. You may have gotten backup 3 material. 4 MS. WEISKE: May I approach? 5 JUDGE ANDERL: Yes. 6 Α. I believe I have a copy of that with me. 7 Let me just check. JUDGE ANDERL: Just so it's clear that 8 9 document is apparently not a part of the record yet. 10 ο. I'm sorry, that spreadsheet is not in the 11 exhibits? 12 Α. No, it's not. Is it proprietary? 13 Q. 14 Α. No. Let me see if I can't come back to that. I 15 Q. 16 apologize for not making copies. I thought that was 17 that exhibit in your direct testimony, Exhibit 6. Is this the four-page exhibit? 18 Α. 19 Q. Yes. It's four pages of diagrams. 20 Α. Yes, I have it. And, actually, I think we can probably go 21 Q. 22 to page 4 because I think that summarizes, does it 23 not? 24 Α. Yes, it does. 25 Q. And what you portrayed here is the effect

1 of or the -- effect of restructuring transport in the 2 tariffs, is it not? 3 Α. More than that, this also shows the effect of switched access expanded interconnection. 4 5 Q. And what's the difference? б Α. The restructure of the transport charges by 7 itself is actually portrayed in the previous exhibit, which is Exhibit 5, and then Exhibit 6 overlays upon 8 that restructure what happens if a customer chooses to 9 10 take advantage of expanded interconnection through virtual colocation at one of U S WEST's offices. 11 12 So in this exhibit you've attempted to Ο. 13 portray the options that are available to, in this case, an interexchange carrier customer as a result of 14 this proposed restructure? 15 16 Α. That's correct. It summarizes the option 17 that are available as a result of both the restructure of the transport charges and expanded interconnection. 18 19 Q. Okay. Now, over here on the left-hand side you've showed what you call contribution rate elements, 20 the carrier common line, and the residual -- residually 21 22 priced interconnection charge. Those of course have nothing to do with cost. Is that correct? 23 24 They are not based on direct costs. I'm Α. 25 not sure I would say they have nothing to do with

1 costs because they are a means today of recovering 2 common costs and perhaps also of subsidizing other 3 services that are presently priced below their costs. Now, of the three options, if we start with 4 Q. interconnection at the end office, as a result of the 5 6 restructure, and in this case the customer you're 7 talking about would be an interexchange carrier, for example, would it not? 8 9 Yes, that's right. Α. 10 Ο. And with this proposal, the carrier would, as you say, self-provision or use a cap or cable TV to 11 12 connect directly at the end office; is that correct? Yes, that's what's illustrated here. 13 Α. And then you've noted that the customer 14 Q. 15 would continue to pay the carrier common line. They 16 would pay the new interconnection charge; is that 17 correct? That's correct. 18 Α. 19 Q. They would pay local switching? 20 Α. Yes. 21 And then we have the new expanded Ο. 22 interconnection channel termination that Mr. Owens described yesterday; is that correct? 23 24 Α. That's correct. 25 Q. And in each of the options, you've noted

00574 1 basically that the customer would continue to pay with 2 this new structure the carrier common line, the 3 interconnection charge, and the local switching 4 charge; is that correct? 5 Yes, that's correct. Α. б ο. So no matter what happens as far as 7 transport the customer is still going to have to pay local switching? 8 9 Yes, and U S WEST would still be providing Α. 10 that switching service to the customer. 11 Now, local switching, I believe, in your Q. 12 new price proposal is going to increase from .065 cents 13 to .01 cent; is that right. 14 MR. OWENS: 1.0. 15 JUDGE ANDERL: One cent. 16 MS. PROCTOR: One cent, I'm sorry. 17 A. Yes. That is the proposal. Obviously, your carrier customers have 18 Q. 19 filed testimony objecting to that substantial 20 increase, have they not? 21 Α. Yes, they have. 22 JUDGE ANDERL: I'm being handed a document 23 that I will mark for identification as the next 24 exhibit in line. It is Exhibit 57. 25 MS. PROCTOR: Actually I think that should

1 be C-57. 2 JUDGE ANDERL: I just understood that it 3 wasn't proprietary. 4 MS. PROCTOR: I'm sorry. 5 JUDGE ANDERL: And at the top it says 6 amended 5-18-95 Switched Access Price Worksheet and 7 it's a multi-page document. (Marked Exhibit 57.) 8 9 Dr. Wilcox, on the first page --Q. 10 JUDGE ANDERL: Are we moving off of the 11 exhibit you were just referring to and are we going to 12 talk about the new exhibit now? I just need to 13 follow. MS. PROCTOR: I'm sorry. Yes. 14 15 Q. In Exhibit C-57. JUDGE ANDERL: Just regular 57. 16 17 MS. PROCTOR: Regular 57. On the first page of that document, which 18 Q. 19 is the switched access private worksheet, there's a 20 designation rate deaveraging discount 10 percent. 21 What does that refer to? 22 Α. I apologize. That particular line is 23 irrelevant to this particular worksheet. It should 24 not have been printed. 25 Q. And the tandem transmission percent DS3,

could you explain what that's about?
 A. Yes. This is the percentage that was used

3 in the formula for calculating the tandem transmission 4 prices. As I indicated, I believe in my direct 5 testimony, I used the same formula that the FCC 6 adopted for adopting -- for calculating the tandem 7 transmission prices as a weighted average of the DS1 8 and the DS3 direct trunk transport prices, and this is 9 the weighting factor that I used for Washington. This 10 is the percentage of fiber versus copper that is in 11 U S WEST's interoffice network in the state of 12 Washington. Just for clarification, the portions of 13 Ο. your testimony that referred to the mix of copper and 14 fiber changed several times. What did you finally end 15 16 up with? Is that what this shows? 17 Α. This is what I ended up with, yes. 18 Is that different than what you started out Q. 19 with? 20 Α. It is. And what did you start out with? 21 Ο. 22 Α. I don't recall the exact percentage, but 23 when we first filed in November we had an older 24 percentage, a lower percentage, and I was then able to 25 increase this based on more fiber deployment, which

1 gives a price advantage because it more helpful 2 weights the DS3 price versus the DS1 price in the 3 calculation. And that's price not cost? 4 Q. 5 Α. That's correct. б Q. Could you turn to page 5 of this exhibit. 7 I believe what this tells us is that under this 8 proposal access generates about \$58 million to U S WEST 9 intrastate? 10 Α. Yes. These recurring switched access charges generate that amount of revenue based upon the 11 12 test period used in this worksheet which is 1993 data. Access grew at the rate of 13 percent in 13 Ο. '94 and you're using '93 data. 14 15 MR. OWENS: Excuse me. That fact isn't in 16 the record. The witness was asked to accept it 17 subject to check. MS. PROCTOR: She did. 18 19 Q. But let's assume -- so the demand numbers that you would actually experience are going to be 20 larger than the numbers that you used to propose in 21 22 this case; is that correct? 23 Α. I believe the absolute quantities have 24 probably grown. When we filed the rate case we used a 25 more recent test period for that which I believe

1 showed higher quantities. I don't believe that's the 2 important factor for the purposes of this worksheet 3 because, as was stated before, this is a restructure. 4 It's not an attempt to change the total amount of 5 revenue from the service, but is a restructure of the б prices to balance to the same amount of revenue. 7 Ο. It would affect, however, the interconnection charge, would it not, because if you 8 have a residual amount you have to recover and you 9 10 divide it by a higher number of minutes you would end up with a lower per minute charge, would you not? 11 12 Α. That would be a true statement, but it does not actually affect the size of the interconnection 13 charge because if we were to redo this worksheet with 14 larger demand numbers then everything would be larger, 15 16 and so it wouldn't be dividing the same number by a 17 larger number. It would be dividing a larger number by 18 a larger number. 19 Q. Are you saying that the revenue requirement

20 would also be larger?

A. I'm saying that the total revenues generatedunder today's prices would calculate out to a highernumber.

24 Q. Today's revenues?

25 A. Yes.

1 Q. Not the revenue requirement? The revenue 2 requirement isn't at issue in this case? 3 Α. That's correct. So based on 1993 data you were projecting 4 Q. 5 \$58 million roughly? 6 Α. Yes. 7 And of that if we turn to the preceding 0. 8 page, page 4, there are no line numbers, but at the 9 bottom you've shown for the carrier common line total 10 revenues of almost \$25 million; is that correct? 11 Α. That's correct. 12 Q. Then if we go to the top of the page for the 13 total interconnect, we have about \$15 million; is that 14 correct? 15 Α. That's correct. So of our \$58 million we've got about \$40 16 Q. 17 million in what you have called the contribution 18 elements; is that correct? 19 Α. Yes, that is correct. 20 And then total local switching. That's \$14 Ο. 21 million; is that correct? 22 Α. Yes. 23 Q. And that's the rate element that no matter 24 what transport configuration a carrier uses they will 25 always be paying this local switching; isn't that

1 correct? 2 Α. That's correct. 3 Q. And that's about another \$14 million? 4 Α. Yes. 5 So that's about 54 of the 58 million? Q. б Α. I believe so. 7 So what we're left with is about \$4 million Ο. 8 based on 1993 estimates of demand that you're affecting with this restructure; is that correct? 9 10 Α. Yes. We're left with about \$4 million in transport revenue compared to today's rates which have 11 12 about \$24 million in transport revenue. 13 Ο. Well, that's from the perspective of U S WEST; is that correct? You move it from a bucket 14 called transport to a bucket called interconnection 15 16 charge; is that correct? 17 Α. It's been moved to both local switching and 18 interconnection charge. 19 Q. And no matter what configuration of transport a carrier uses they're going to pay the 20 interconnection charge and the local switching charge? 21 22 Α. That's correct. From the customer's point of view, Dr. 23 Q. Wilcox, why would they care about this restructure? 24 25 Α. It's my understanding from my conversations

1 with customers and from the testimony that's been 2 filed that the restructure does have some impact on 3 the carrier's business. It does allow choices for 4 transport arrangements, and for payment of prices that do reflect their choices. 5 б ο. And if customers were to exercise those 7 choices on the transport portion, obviously that would require capital investment on their part, would it not? 8 I'm not familiar with the degree to which 9 Α. 10 it would require capital investment. 11 If a carrier customer were reconfiguring Q. its network or making changes in its network that 12 13 could involve capital investment, could it not? Yes, it can. 14 Α. And the rates that you're proposing here 15 Q. 16 are going to be changed or you have proposed to change 17 them in the rate case, have you not? 18 We have proposed changes in the rate case. Α. 19 Very little of those changes impact the transport charges per se. The changes in the rate case are 20 21 focused on overall reduction, most notably a reduction 22 of the interconnection charge. And the rate case is scheduled to be heard 23 Q. in a couple of months, is it not? 24 25 Α. I don't recall the exact schedule.

1 Q. But it will be heard before the end of the 2 year, will it not? 3 Α. I believe so. And I think yesterday Mr. Owens indicated 4 Q. that six months is not a long time or a long term. 5 6 Would you agree with that characterization? 7 Α. It all depends on what you're talking about whether it's a long time or not. 8 If we were in hearings for that long it 9 Ο. 10 would be a long time. Again, from a customer's point of view, 11 12 businesses usually value certainty and determination of 13 issues in order to make investment decisions, do they 14 not? 15 Α. Yes. Would it be fair to say that the carrier 16 Q. 17 customers since rates could change in a few months 18 might not be making investment decisions and would 19 wait for final determination? 20 Α. They might choose to do so. However, I'm 21 doubtful that all carriers would be waiting just on the 22 outcome of this particular set of prices because switch 23 access is both an interstate and an intrastate service, 24 and it in most cases the carriers have higher 25 proportion of interstate than intrastate traffic, and

so many of those investment decisions will be made on
 the basis of the interstate rates, but I certainly
 would agree that the intrastate rates are an important
 factor.

5 Q. Dr. Wilcox, if your customers indicated to 6 you as a group that they preferred to have this 7 restructure wait until the rate case, would you be 8 willing to agree to that?

9 A. I don't believe U S WEST could agree to 10 that just because the restructure impacts more than 11 switched access service. It also impacts our proposal 12 for local interconnection.

Q. And if the Commission were to decide that it would use bill and keep, which I realize is not U S WEST's proposal, but if they were to decide to do that, there would be no need for this restructure, would there?

18 A. No. I don't agree with that statement.
19 Q. And why not?
20 A. The restructure of the transport charges
21 for switched access is needed regardless. The

22 restructure has already taken place in the interstate 23 jurisdiction, and we've been operating for almost --24 over a year now with two different structures in the 25 two jurisdictions for the same service, and this means

1 everybody is maintaining dual billing systems, dual 2 systems for tracking the billing and so on, and the 3 sooner that we get resolution and a consistent 4 structure across the jurisdictions, the better off both U S WEST and our carrier customers will be. 5 б Q. Well, I realize that you think the carrier 7 customers will be better off with the restructure, but 8 the carrier customers have been taking the position that they would prefer to have this issue resolved in 9 10 the rate case, and assuming that the Commission adopted bill and keep and that the carrier customers 11 12 have indicated that they would prefer to have the 13 issue resolved in the rate case, is U S WEST still 14 unwilling to defer that issue? 15 MR. OWENS: Asked and answered. JUDGE ANDERL: I think there's a different 16 17 set of conditions. Go ahead, Ms. Wilcox, Dr. Wilcox. I'm not sure that I can answer for the 18 Α. 19 company in that case. 20 Can you tell us what your recommendation Ο. would be? 21 22 Α. It would seem to me that having put the issues about the transport restructure forth in this 23 24 docket and all the parties having an opportunity to 25 file the testimony, weigh in with their

1 recommendations, that just from an efficiency point of 2 view it would make sense to go ahead and make the 3 decision based upon that rather than rearguing it. I 4 do believe that the issues of the transport prices by 5 themselves can be considered separately from the issue 6 of what should be the overall price level for switched 7 access as a total service, and of course that issue is 8 contained in the rate case rather than in this docket. I would also agree that with the timing 9 10 being as close as it is it certainly is not something 11 that nobody -- that we couldn't live with to have it postponed. I would be hopeful, though, that we could 12 13 go ahead and get some of these issues settled and just 14 get on with it. Thank you very much. 15 Q. MS. PROCTOR: I have no further questions. 16 JUDGE ANDERL: Go ahead and take our morning 17 18 recess. We'll be back at 10:30. 19 (Recess.) JUDGE ANDERL: Let's be back on the record 20 21 after our morning recess. Ms. Proctor, do you want to 22 move the admission of the three exhibits we had 23 identified? 24 MS. PROCTOR: Yes. 25 JUDGE ANDERL: C-55, C-56 and 57, Mr.

1 Owens, do you have any objection? 2 Those three will be admitted as identified. 3 (Admitted Exhibits C-55, C-56 and 57.) JUDGE ANDERL: Next person to cross on this 4 5 would be Ms. Weiske. Do you want to go ahead or do you 6 want to defer to someone else ahead of you? 7 MS. WEISKE: Well, it might be simpler if I 8 defer until near the end, I think a lot of my questions 9 have been asked but I can go ahead. I was thinking if 10 I follow IAC and Sprint that may eliminate everything I 11 have. 12 JUDGE ANDERL: That would be fine. Let's 13 go ahead with IAC. MR. MUTSCHELKNAUS: Your Honor, as we 14 15 mentioned off the record, we have a number of 16 exhibits, and it would be our proposal to mark them 17 all now even though some will probably be for Mr. 18 Farrow but it's unclear which ones will be sponsored 19 by Mr. Farrow and which ones by Ms. Wilcox. I apologize. I have a dozen copies, the Westwater hotel 20 21 ran out of copies this morning. 22 JUDGE ANDERL: Now, what exactly is in --23 let's be off the record while we do this. 24 (Discussion off the record.) 25 JUDGE ANDERL: Let's be back on the record.

1 While we were off the record Mr. Mutschelknaus 2 distributed a number of exhibit which we've 3 identified. Many of them will probably be offered 4 through Mr. Farrow. However, I will identify them now 5 for the record with the exhibit numbers we've given 6 them. Exhibit No. 58 is the response to IAC data 7 request No. 01-008. Exhibits 59, 60 and 61 are 8 confidential, so there's C-59, 60 and 61. They're the 9 responses to data requests 9, 10 and 11 from IAC. The 10 next exhibit is confidential Exhibit C-62 is entitled 11 LRIC Cost Difference Between DS1 and DS3 Direct Trunk 12 Transport. The next exhibit is C-63. It's the 13 response to IAC data request No. 18. C-64 is the 14 response to data request 20. C-65 is the response to data request 38. Exhibit C-66 is entitled Work Papers 15 16 Switch Access and Local Interconnection 1995 recurring 17 cost study state of Washington. Exhibit C-67 is 18 entitled percentage of shared residual assigned to 19 fixed charges at zero miles. Exhibit 68 is not 20 confidential. It's two FCC tariff pages. Exhibit 69 21 is also not confidential even though it states that it 22 is. It's entitled price difference between DS1 and DS3 23 direct trunk transport ten miles.

24The next two exhibits are both confidential,25C-70 and C-71 appear to be the same chart. However,

1 they are different and I will explain that in just a 2 minute. They're both entitled Interoffice Switched 3 Transport Contribution Analysis 10 miles, and if you 4 look in the body of the chart one indicates ADSRC 5 costs. That's Exhibit C-70. The other indicates total 6 ASIC costs. That's Exhibit C-71. And then Exhibit 72 7 is also not confidential. It is entitled Comparison of 8 Absolute Versus Relative Contribution Loading. Go 9 ahead, Mr. Mutschelknaus. 10 MR. MUTSCHELKNAUS: Thank you, Your Honor. (Marked Exhibits 58, C-59, C-60, C-61, C-62, 11 12 C-63, C-64, C-65, C-66, C-67, 68, 69, C-70, C-71.) 13 14 CROSS-EXAMINATION 15 BY MR. MUTSCHELKNAUS: 16 Q. Like to begin with a couple of preliminary 17 questions of clarifying questions, and perhaps it 18 would facilitate that by referring to your Exhibit 6 of 19 your direct that we had used earlier in the 20 cross-examination by Ms. Proctor, again page 4 of that 21 exhibit which is a diagram Washington switched access 22 expanded interconnection. Are you with me, Ms. Wilcox? 23 Α. Yes, I am. 24 JUDGE ANDERL: Maybe you're going to have to 25 stand at a different position at the table so that you

1 can look at the witness and speak into the microphone 2 at the same time. 3 Q. Ms. Wilcox, we talked about the local transport service that is the subject of your tariff 4 5 filing you're testifying by. Can you just point to us 6 on this diagram what exactly it is what we're talking 7 about? Yes. The local transport service provides 8 Α. 9 the link between the end office on the diagram and the 10 POP which is the carrier's point of presence or the carrier's premises. 11 12 Ο. And the connection between the serving wire center and the POP is referred to as the entrance 13 facility; is that correct? 14 15 Α. That's correct. And you understand any party to this 16 ο. 17 proceeding could be contesting your proposed pricing Α. I am trying to recall. I'm not sure that any have specifically cited the entrance facilities 20 21 prices. 22 Q. And in fact let's look at the other side of 23 the serving wire center, the connects between the 24 serving wire center and the end office is referred to 25 as the interoffice portion, is it not?

18 of entrance facilities? 19

A. We could refer to it that way. It's really
 more complex than that, but I would accept that as a
 shorthand way of referring to it.

4 Q. Fine. Thank you. And isn't it true that 5 the criticism that has been leveled in this proceeding 6 of U S WEST proposed transport pricing focuses on the 7 pricing of that interoffice component?

8 A. That certainly has been the focus of the9 discussion.

10 Ο. And I will represent to you from here on 11 out in my cross-examination, when I refer to transport I'm referring to the interoffice component of 12 13 transport. Is that acceptable to you, Ms. Wilcox? I can accept that definition, yes. 14 Α. Looking at that interoffice component, this 15 Ο. 16 particular exhibit is a diagrammatic portrayal of 17 transport. Would you agree with that? 18 Α. Yes, I would. 19 Ο. And does not actually map the physical facilities used in the process? 20 21 Α. It does not map those facilities in detail. 22 It has some general representations of the facilities.

23 Q. And indeed, for example, the access tandem 24 in the serving wire center in this diagram could in 25 fact be the same switch, could it not?

1 Α. They could be located in the same building. I don't believe they could be the same switch. 2 3 Actually, all three of these switches in this diagram could be located in the same building. 4 5 Q. The end office and the serving wire center 6 could in fact be the same switch, could it? 7 Α. In that case, yes, they could be the same 8 switch. And if you look at the little slash line 9 Ο. 10 direct trunk transport and then the solid line that is labeled tandem switch transport, that could in fact be 11 the very same fiber facility, could it not? 12 13 Α. It depends on what you mean by fiber facility. My understanding of direct trunk transport 14 is that certain circuits are indeed dedicated to that 15 16 particular carrier customer, whereas on tandem switched 17 transport that would not be the case. 18 Ο. When you say that that circuit is dedicated 19 to a particular customer, are you -- let's explore what you mean by that. Do you mean that a particular 20 fiber pair is separated out and dedicated to the use 21 22 of one customer? Unfortunately, I'm not an engineer, Mr. 23 Α. 24 Mutschelknaus, and so it's difficult for me to respond

25 to a question like that. I don't know physically what

1 is done but I can say to you that somehow or another 2 there is a circuit that is dedicated to that customer, 3 and only that customer's traffic is carried on that 4 circuit. 5 I will ask you one more question about that Q. 6 and if you don't know the answer that's fine. Would 7 you accept that it is not a physical fiber facility but simply the allocation of a bit stream within a fiber 8 facility? 9 10 Α. I don't know. The interoffice transport we're referring 11 Q. 12 to, who were the primary customers of that service? Of the interoffice transport service? 13 Α. 14 Q. Yes. Well, the primary customers, as I've said 15 Α. 16 before, of switched access are interexchange carriers, 17 and the interoffice transport that we're discussing is 18 a part of the switched access service. 19 0. That interoffice transport is intended for resale by those interexchange carriers, isn't it? 20 That's one way of viewing it. It is a 21 Α. 22 piece of the service that they sell to their 23 customers. 24 Ο. And indeed -- haven't you testified that 25 switched access represents a very high component of an

interexchange carrier's overall cost of service?
 A. I'm not sure if I've testified to that or
 not, but I would agree that most carriers view it as a
 relatively high component of their costs of doing
 business.

Q. Do you have in mind an average of an IXC's
cost structure that's comprised of access expenses?
A. I'm not sure what you mean by cost
structure.

10 Q. Well, I believe in your direct testimony at 11 some point you indicated that as much as 40 to 50 12 percent of an IXC's cost of service is comprised of 13 access charges?

14 A. Yes. Yes, I believe that that number has 15 been commonly used in the industry and my recollection 16 is that it stems from a quotation from an MCI official 17 that represents MCI's cost structure.

18 Q. Now, today, how is the transport charge 19 today in Washington? What is the rate structure for 20 it?

A. Today, transport is charged a single charge
per minute of use by mileage band irrespective of
whether the carrier customer chooses direct trunk or
tandem switched transport.

25 Q. So it's an equal charge per minute of use?

1 A. That's correct.

Q. And referring to your diagram, Exhibit 6, does that mean that regardless of what type of transport is used a customer pays the same amount for service between -- at the end office and the serving wire center?

A. Yes. Actually the charge includes the
connection to the POP as well but, yes, they pay the
same amount.

10 Q. And how is that changing under the proposed 11 LTR structure?

12 What the local transport restructure does is Α. 13 disaggregate the charges into a structure that is more reflective of the way that the network is actually 14 configured, and therefore we now will have separate 15 16 charges for the different pieces. The pieces that are 17 dedicated to the individual customer's use are charged 18 for on a flat monthly basis rather than per minute of 19 use, and these include the entrance facility, connecting the carrier's premises to the first point on 20 21 our network, which we call the serving wire center 22 here. Then if that carrier chooses direct trunk 23 transport to a particular end office, and as I said 24 before, that is a dedicated facility, dedicated to that 25 carrier's uses and there are flat monthly charges for

1 that service as well, and it can be ordered at voice 2 grade, DS1 or DS3 levels. Then the other option would 3 be tandem switched transport. If that particular 4 carrier does not have sufficient traffic to a certain 5 end office or to a collection of end offices to make 6 use of a dedicated or direct trunk link, then the 7 carrier would reach the customers served out of that 8 end office through the tandem switch.

9 And indeed it's my experience that carriers 10 will always have tandem switched transport within a 11 LATA because that gives them essentially LATA-wide 12 access to all end offices. And that transport then is 13 charged per minute of use, a usage-sensitive charge. 14 It reflects the fact that the costs are 15 usage-sensitive, that the more that it is used, the 16 higher our costs of providing the service.

Q. Thank you. If I can summarize, see if you agree with this statement then, that currently there's a single service option available for transport service from U S WEST but it's being replaced by a choice of several new service options.

22 A. I would not agree with that

23 characterization of what's going on.

24 Q. Okay. And how would you disagree with 25 that?

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1 Α. The services are there today. The carriers have had these choices as to how we provision their 2 3 transport services for them all along, and they have 4 been making these choices. What's different is that 5 now the prices will reflect the choice that the carrier 6 has made. 7 All right. Well, that's a fair comment, so Ο. if I modify my summary to say that previously there 8 was a single pricing option available, and it's been 9 10 replaced by several new pricing options, would you agree with that? 11 12 Α. Yes, I would. Now, those pricing options, the principal 13 Ο. ones that you mention I believe were DS3 dedicated, DS1 14 dedicated and tandem switch transport? 15 16 Α. Those plus voice grade dedicated. 17 ο. And of those options, would you agree with 18 me that DS3 is priced the least expensive? 19 Α. Well, it actually has the highest price per 20 month. 21 On a per circuit available per use basis, Ο. 22 is it priced the lowest of any of the options? On a per circuit basis it would be the 23 Α. lowest price. 24 Q.

25

And indeed just to make the record clear,

1 would you agree that there are 672 channels of 2 capacity in a DS3 circuit? Yes, I would. 3 Α. And that's equivalent of 28 DS1 circuits, 4 Ο. DS1 facilities? 5 6 Α. Yes, it is. 7 Ο. And would you agree with me that the DS1 facility on a -- excuse me, let me change that. Would 8 you agree of those options that the tandem switched 9 10 transport pricing option is the most expensive on a circuit for available capacity basis? 11 12 Α. That comparison is much more difficult to 13 make, and I know that we all have been making the comparison assuming that a voice grade circuit is 14 equivalent to 9,000 minutes of use per month, and that 15 16 is the convention, but in my experience that does vary 17 quite a bit, and different carriers have different usage patterns, different peak load patterns, and and 18 19 there may be more or less than 9,000 minutes of use 20 carried on a voice grade equivalent circuit, but for 21 the purposes of making a comparison, if we agree on 22 9,000 minutes of use as a reasonable number, then, yes, 23 the tandem switched transport would calculate out to be the most expensive per minute of use. 24

25

Q.

Dr. Wilcox, based on your experience in the

industry, do you believe that a price of access
 services is an important input in an IXC's pricing of
 its retail long distance services?

I would think it would be an important 4 Α. input. There isn't always a one-to-one relationship. 5 б ο. If one IXC had a material cost advantage in 7 terms of what it pays for access charges over other IXCs, do you believe it would have a cost advantage 8 and be able to price lower than its competitors? 9 10 Α. It's possible. It's not necessarily true. Referring to your earlier testimony, I 11 Q. believe you said that the intent of these new pricing 12 13 options was to reflect the way that the service is configured; is that correct? 14

15 A. That is correct.

16 Ο. And in producing the proposed LTR prices, 17 did you in fact examine the costs of each service of the proposed service options and attempt to price in a 18 19 way that reflects the cost differences between them? 20 Α. I did indeed examine the costs. I've used the costs as a price floor in every case. And the new 21 22 prices do indeed reflect the cost structure of the 23 services of the underlying services to a much greater 24 extent than the present equal charge per minute of use 25 structure does. It is a dramatic change.

1 Q. Well, I would like to test that statement, 2 and perhaps the best way to do it to begin with is to 3 try to determine on a DS3 and a DS1 what the 4 difference is and how you went about setting the 5 prices. Now, this is where we're going to get into a 6 little bit of confusion. Let's look at -- what I would 7 like to try to do is establish what the cost 8 difference to U S WEST of providing DS1 service versus 9 DS3 service is, and if you're not the correct witness 10 then we will defer to Mr. Farrow, but let's begin and 11 see what we can do. We had asked in discovery for U S 12 WEST to detail for the typical interoffice fiber link 13 every difference in equipment and facilities used by 14 U S WEST to provision a DS1 and a DS3. That's 15 reflected in the exhibit that's now been marked No. 58. 16 Do you have that in front of you, Dr. Wilcox? 17 Α. Yes. 18 Q. And are you prepared to testify regarding 19 this exhibit? 20 Α. No, I'm not. 21 Ο. And would Mr. Farrow be the correct witness 22 for that? Yes. He's listed as a respondent. 23 Α. 24 ο. And would the same be true of C-59, C-60 25 and C-61?

1 Α. Yes, it would. 2 ο. I would assume then that C-62 which refers 3 to the LRIC cost difference between a DS1 and DS3 DDT 4 is not something you're prepared to testify to? 5 Α. No, I'm not. 6 Q. Did you refer to cost studies in setting 7 those prices? Yes. The results of the cost studies were 8 Α. one of my inputs in setting prices. 9 10 Ο. Well, I have to wait for Mr. Farrow to go into the cost difference between a DS1 and DS3 then, 11 12 but perhaps we could skip ahead and you could at least 13 establish on the record the price difference. Would 14 you refer to Exhibit No. 69, please. Do you have it in front of you? 15 16 Α. Yes, I do. 17 Ο. What I attempted to do in this 18 demonstrative exhibit is to determine by way of 19 example what the price difference between a DS1 and a 20 DS3 dedicated facility under the proposed rates would 21 be at a distance of ten miles, and I would like to go 22 through with you and verify if I've done this 23 correctly. Now, for DS1 service I have by reference

23 correctly. Now, for DSI service I have by reference24 to the prices in your proposed tariff assigned a fixed25 charge of \$200. Would that be a correct price at the

1 10 miles distance?

2 Α. I would have to go into some detail to 3 verify that for sure, but I would accept it subject to 4 check. It looks about right. 5 And the mileage charge at 10 miles, if the Q. 6 mileage charge -- would you accept subject to check 7 that it's \$15? Α. 8 Yes. And would it be appropriate to multiply 9 Ο. 10 that by 10 to come up with a monthly charge for DS1? 11 Α. Yes, it would. 12 Q. And therefore the resulting amount per 13 month would be \$150 subject to check? Yes. 14 Α. And then to determine the cost to the 15 Ο. 16 carrier of a DS1 wouldn't you add those two numbers 17 together? Yes, you would, but that would not give you 18 Α. 19 the entire cost of a complete transport service, 20 because you have not included the entrance facility. All right. If I was asking what I was 21 Ο. 22 paying for interoffice transport, would this be the 23 correct number? 24 It would be correct for the interoffice Α. 25 portion of transport.

And for DS3, let's look at that, and again 1 Q. 2 I'm only referring to the interoffice component and 3 let the record reflect that that's all this exhibit is 4 showing. Would you accept subject to check that the 5 proposed fixed charge for 10 miles distance is б \$593.75? 7 Α. Yes. And again, would you accept subject to 8 Q. check that the mileage charge is \$35.15 per mile? 9 10 Α. Yes. Would it be appropriate for me to multiply 11 Q. that by 10 miles distance to compute the monthly 12 13 charge? Yes, it would. 14 Α. And in order to compare the DS3 to the DS1, 15 Q. 16 I have added a three to one multiplexer charge; is 17 that correct? This is where it gets a little more 18 Α. 19 complicated. If a carrier is using DS3 service then it is my understanding a multiplexer would be required 20 21 at some point in the transport service. I believe 22 it's more commonly in the entrance facility than in 23 the interoffice facilities, so that's the part that 24 I'm not real clear on. Since you're not including 25 entrance facility, I'm not sure whether it is or is

1 not appropriate to add in the multiplexer, but be that 2 as it may, this would be the way to do it. 3 Q. And then in order to compare the DS3 price to the DS1 price on a monthly basis, I would have to 4 divide the total by 28, wouldn't I? 5 б Α. If you want to do it on a per DS1 basis. 7 Ο. And if you accept the numbers subject to check that we've input into that equation, would that 8 not result in a total monthly DS3 price of \$46.50 per 9 10 DS1 --Yes, subject to check. 11 Α. 12 And indeed then the price difference per Q. 13 month between a DS3 and a DS1 on a DS1 per month basis would be \$303.50? 14 That is the calculation. That's not a 15 Α. 16 price comparison that a carrier actually would be 17 making in making a purchase decision because a part of the purchase decision involves traffic loads and 18 19 relative quantities, how many DS1s might be needed versus one DS3. There are various other considerations 20 21 that would enter into the formula or into the decision 22 process. But, yes, your calculations would be accurate for the comparison that you were making. 23 24 Well, I think you did testify earlier that Ο. 25 your intent in setting the prices was to have the

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1 prices reflect the price differences between each of 2 the options, reflect these differing service 3 configurations? That is true. 4 Α. 5 So isn't it fair to compare what your Q. 6 proposed prices are -- isn't it fair to compare what 7 the proposed price differences are to the actual cost 8 differences between the services? You certainly can do that. 9 Α. 10 Ο. And so we've established the price 11 difference and we'll leave the cost difference for Mr. 12 Farrow then. JUDGE ANDERL: Mr. Mutschelknaus, just so 13 14 we don't lose track here do you want to go ahead and 15 offer Exhibit 69? MR. MUTSCHELKNAUS: Can I offer it into 16 17 evidence. JUDGE ANDERL: Any objection. 18 MR. OWENS: None. 19 20 JUDGE ANDERL: Exhibit 69 will be admitted 21 as identified. 22 (Admitted Exhibit 69.) Let's try to get at this a different way, 23 Q. 24 Dr. Wilcox. Would you refer to the exhibit which has 25 been identified as C-70?

1 A. Okay.

2 Q. And I caution you that this particular 3 exhibit does include confidential numbers, and what 4 I'm going to try to do is verify the methodology, and I would ask you not to state any of the numbers on the 5 б record, please. 7 Α. Okay. And hopefully in this way we can avoid 8 Q. clearing the room. 9 10 Ο. Dr. Wilcox, did you receive copies of Exhibit 70 and 71 last evening? 11 12 Α. No. Two days ago I received something that looks similar to 70. I'm not sure if it's identical 13 or not. 14 15 Well, I apologize. I did leave something Q. 16 at the hotel. Apparently you didn't get it. 17 Apologize for that. Nevertheless, if you could bear with me then 18 19 and we'll try to go through C-70. It is not the one from two days ago because it does attempt to reflect 20 the new cost study number? 21 22 Α. Okay. 23 Let's see if we can verify what we're Q. 24 talking about. The first column, which does not 25 include any confidential information, is entitled total

1 price. And what I have attempted to do is compute the 2 total price that U S WEST would charge under the 3 proposed tariff at a distance of 10 miles for each of 4 the three principal transport options. I believe that 5 the first two numbers, the DS1 and DS3 total price 6 numbers are the prices we just went through so we don't 7 need to do that again. Do you agree with that?

8 A. Yes.

Now, on the tandem switching prices, what I 9 Ο. 10 have attempted to do is compute what the proposed per minute charge by U S WEST is for a tandem switch call 11 per minute, including both tandem transmission and the 12 13 tandem switching charge. Would you take a look at that box and see whether I've done it appropriately. 14 Yes. That looks appropriate for the 15 Α. 16 situation in which a carrier has chosen to use tandem 17 switched transport for the entire distance between the serving wire center and the end office. 18

19 Q. And I took those -- all of the numbers for 20 the total price column from your Exhibit 7 to your 21 direct testimony dated May 18, 1995. Would that have 22 been the appropriate place to take the numbers from? 23 A. Yes.

Q. Now, the second column, the total ADSRCcosts column does include confidential information,

1 and I would like you to avoid mentioning particular
2 numbers. But if you could look at the DS1 amount, I
3 have referred -- those numbers were taken from what was
4 previously admitted as C-55. Do you agree that those
5 numbers reflect in the cost study and is that the
6 appropriate place to have taken numbers from?

7 A. Yes, it is.

8 Q. And the next one -- so would you agree with 9 the numbers included therein including the total as 10 fairly representative of what the total ADSRC cost is 11 for DS1 on a monthly basis to U S WEST?

12 A. For the interoffice portion of the13 transport, yes.

And I have the same question for the DS3, 14 Q. except for the fact that I took those numbers from the 15 16 exhibit which has been previously marked an exhibit --17 and admitted, excuse me, as Exhibit C-56. Have I 18 performed that calculation appropriately? 19 Α. I haven't checked the individual numbers to see -- to verify that you've used the right numbers in 20 the right places, but the method does look 21

22 appropriate. Again, for the interoffice portion of

23 the transport you have not included the entrance 24 facility.

25 Q. Right. And finally for the tandem

1 switching category, the tandem transmission and 2 switching category, I have included several 3 categories. Now, those numbers were taken from 4 elsewhere, and with your help perhaps we can get it 5 admitted into the record because I don't think that 6 one has been admitted yet. Could you please refer to 7 C-66. Earlier in response to questioning from Ms. Proctor you referred to the fact that you had received 8 in April a new cost study regarding switched access 9 10 and relied on it in setting or at least revising your transport prices. Do you recall that? 11 12 Α. Yes. I recall that I referred to a cost 13 study that had an April date on it. I will state for the record that C-66 is an 14 ο. excerpt because it was a very lengthy document, and I 15 16 have no opposition to U S WEST putting the whole thing 17 in the record if it wants to, but I attempted to just take out the relevant portions, but would this 18 19 document be the appropriate place to refer to to find 20 the cost numbers for the tandem transmission category? 21 Α. It looks like the right study. I'm not 22 seeing the summary page that I am used to using as my source of these numbers, but perhaps you just didn't 23 copy that particular page. 24

25

Q. Could you refer to the final page of the

00609 1 exhibit, which is entitled 1995 long-run incremental 2 cost? 3 Α. Yes, yes. The final page that you have included is the summary page that I would have used as 4 my source. 5 б Q. And this is the most current information available to your knowledge? 7 Regarding the cost of tandem transmission 8 Α. and tandem switching service? Yes, it is. 9 10 MR. MUTSCHELKNAUS: Your Honor, I would 11 move the admission of C-66. 12 JUDGE ANDERL: Is there any objection? 13 MR. OWENS: None. JUDGE ANDERL: C-66 will be admitted as 14 15 identified. (Admitted Exhibit C-66.) 16 17 ο. Going back then to C-70, would you agree 18 that then the computations in the category total ADSRC 19 cost for the tandem transmission switching category is 20 correct? 21 Α. Yes. Again, for the calculations that you 22 are performing it appears to be correct. As I said 23 before, I don't agree with your representation of the 24 transport price.

25

Q.

Because you think it should include an

1 entrance facility?

2 A. That's right.

3 Q. Can the carrier order interoffice transport without ordering an entrance facility, Dr. Wilcox? 4 5 Today, the carrier cannot. Once expanded Α. 6 interconnection takes place that will be an additional 7 option in which case an EICT, expanded interconnection channel termination, would be ordered instead of the 8 entrance facility. 9

10 Q. So at that point it will be an unbundled 11 service, will it not?

12 A. The transport pieces become unbundled.
13 Q. And indeed on the interstate -- on your
14 interstate tariff today, you can order interoffice
15 transport separately from the entrance facility; isn't
16 that correct?

17 A. That's correct.

Q. Now, in order to compare each of these three we need to convert them all, in order to make it apples to apples as it were, we would need to convert all to an available circuit basis. Would you agree with that? A. That's the part that I don't agree with. It would appear to me that by doing that you are actually portraying what the transport restructure is trying to achieve in the first place, and that is to

1 align the prices more closely with the underlying cost 2 structure, and larger facilities carry more traffic by 3 definition, and the different configurations will have 4 different underlying costs, will have different 5 prices, and when you calculate the contribution in an 6 absolute level, as you have done here, then, yes, of 7 course you will see bigger numbers for some, smaller 8 numbers for others, and the differences will look 9 quite dramatic. And that's why in my rebuttal 10 testimony I recommended instead of a percentage calculation of contribution, it seems more reasonable 11 12 to me that, for example -- and I will just use an 13 example number here -- that if a certain transport configuration the price contained 50 percent 14 contribution, and then another transport configuration 15 16 contained 55 percent contribution that those would be 17 relatively equivalent in the degree of contribution that they were providing. Now, one of those options 18 19 may cost \$2,000 a month and the other one may cost 20 \$300 a month, so they're very different in terms of 21 the absolute numbers. The absolute price. And 22 therefore the absolute contribution amount will be 23 very different, too. But I think what is a more 24 reasonable guideline is the relative amount of 25 contribution provided by these various options.

1 Q. Dr. Wilcox, I understand that you are 2 recommending that the Commission only consider the 3 relative amount of contribution rather than the 4 absolute amount of contribution and we will return to 5 that subject, but I was trying to calculate the 6 absolute amount of contribution. Does this exhibit 7 fairly demonstrate how the absolute contribution would 8 be calculated? Α. This demonstrates one method of calculating 9 10 absolute contribution. 11 And if we get to the contribution per Q. 12 circuit then does it show in fact that the absolute 13 amount of contribution per circuit in a DS1 versus a 14 DS3 is about 10 times as much in a DS1 as a DS3? 15 That is what these numbers portray. Α. 16 ο. And nearly 18 times as much contribution in 17 an absolute sense in tandem switch transport than in 18 DS3 entrance port? 19 Α. That is an accurate representation of your 20 numbers, yes. MR. MUTSCHELKNAUS: Now, Your Honor I move 21 22 the admission of C-70. JUDGE ANDERL: Any objection? 23 24 MR. OWENS: No objection. 25 JUDGE ANDERL: C-70 will be admitted.

(Admitted Exhibit C-70.) 1 2 Q. Dr. Wilcox, if we could just look at 3 Exhibit C-71 then. C-71 I attempted to perform the 4 same analysis using your most recent cost studies at 5 10 miles only instead of using ADSRC costs which has 6 been discussed earlier in this proceeding I've used 7 ASIC costs. Now, the price numbers remain the same. 8 The ASIC cost numbers I took from the same exhibits as I took the ADSRC numbers. Would that be appropriate? 9 10 Α. That would be the right source, yes. And would you accept subject to check that 11 Q. I've indeed taken the right numbers out of those 12 13 exhibits? Yes, I would. 14 Α. 15 And without going through the entire Q. 16 analysis then because it's the same, doesn't this show 17 that on the absolute contribution per circuit using 18 ASIC costs for a tandem switch transport is over 20 19 times -- nearly 25 times as much as it is for DS3? 20 Α. That's what these numbers show, yes. MR. MUTSCHELKNAUS: Your Honor, move the 21 22 admission of Exhibit C-71. 23 JUDGE ANDERL: Any objection? 24 MR. OWENS: I'm going to object on the 25 basis of no foundation. The witness hasn't been asked

1 whether or not contribution is properly defined in 2 terms of ASIC, as this exhibit purports to do. 3 MR. MUTSCHELKNAUS: Okay. Let me ask the 4 witness. 5 MR. OWENS: Your Honor, it's not her 6 exhibit. 7 JUDGE ANDERL: I understand. Go ahead, Mr. 8 Mutschelknaus. I will ask the witness if she disagrees 9 Ο. 10 with the definition of contribution. Well, it's not my definition of 11 Α. 12 contribution because I have used the term contribution 13 to refer to contribution to common costs, and what 14 your Exhibit C-71 does is it mixes together 15 contribution to common costs with another kind of 16 contribution, and that's the shared costs, the degree 17 to which this price also contributes to the shared 18 group costs. So it's kind of a mixture of two things 19 in there in your C-71 exhibit. It is not the same 20 thing that I have called contribution. 21 Because it includes the shared residual Ο. 22 cost? Well, actually because it excludes the 23 Α. 24 shared residual costs from the cost number. 25 JUDGE ANDERL: But moves them over into the

1 contribution number.

2 THE WITNESS: By default, yes. 3 Q. So if I change the heading of the last 4 column from contribution per circuit to contribution 5 in shared residual cost per circuit, would that be 6 something that you would agree with? 7 Α. I believe so, yes. MR. MUTSCHELKNAUS: I will note on the 8 9 record that the last column should be modified to say 10 contribution plus shared residual cost per circuit. JUDGE ANDERL: I will make that change on 11 12 the official copy of this exhibit. MR. MUTSCHELKNAUS: Thank you, Your Honor. 13 With that modification I would move the admission of 14 15 Exhibit C-71. JUDGE ANDERL: Any objection? 16 17 MR. OWENS: None. JUDGE ANDERL: Exhibit C-71 will be 18 19 admitted as identified and just modified. 20 (Admitted Exhibit C-71.) 21 Dr. Wilcox, you had several criticisms in Ο. 22 your rebuttal testimony of the position taken by 23 IX witness Mr. Gillan. If I could refer you to that 24 portion of your rebuttal testimony. Page 5. Page 5 of 25 T-46. Like to run through each of your three

1 criticisms if we could. The first one is that 2 specifically you're criticizing Mr. Gillan's 3 contribution analysis that was included in his direct 4 testimony, and you say, number one, in lines 21 through 5 22 that he used inconsistent cost bases for calculating 6 the contribution. Do you see that? 7 Α. Yes, I do. 8 Q. And can you tell me what your basic criticism was there? 9 10 Α. The problem I saw there was that he apparently had used ASIC costs for the tandem option 11 12 and had used ADSRC costs for the DS1 and DS3 options. And were cost studies available from U S 13 Ο. WEST at the time direct testimony were filed that 14 15 broke those costs out for the dedicated category? 16 Α. I don't know. I guess I would suggest that 17 if they were not available that it would have been -it would have produced a more relevant study if at 18 19 least a consistent basis had been used rather than 20 inconsistent. 21 Do Exhibit 70 and 71 suffer from the same Ο. 22 fatal. 23 No. In Exhibit 70 and 71 that particular Α. 24 problem has been taken care of.

25 Q. The second -- the second criticism you make

1 of Mr. Gillan is the issue you referred to earlier 2 which was his use of absolute measure of contribution. 3 And I gather it's your position that you should use 4 relative versus absolute? 5 Α. That's true. 6 ο. Would you refer to the document that's been marked but not admitted as Exhibit 72. 7 8 Α. Okay. Now, what I've tried to do is -- this is a 9 Ο. 10 very hard issue for anybody to understand, I think, so I've tried to put it down in black and white and we'll 11 12 see if you agree or disagree with my analysis. I made 13 an assumed cost per minute on access of one cent, two 14 cents and three cents for whatever different options we 15 may want to come up with. Do you see that? 16 Α. Yes, I see it. 17 Ο. And let's assume that we're going to price 18 assign an absolute amount of contribution of one penny 19 per minute to each one of those. That would be column 20 2. Do you see that? 21 Α. I see column 2 but I'm not sure it portrays 22 what you just described. No, it doesn't because the third one should 23 Q. 24 be four cents, correct? 25 If you intend to add a penny to each of Α.

1 those costs, then, yes.

2	Q. Right. There is an error and that should
3	be changed to say four cents. So it should be if
4	you were going to adopt Mr. Gillan's approach of equal
5	contribution you would take the cost column and add
6	one penny for each one of those; isn't that correct?
7	That would be 2, 3 and 4 cents?
8	A. I guess I need some clarification. Are you
9	saying that in your cost column that those that's
10	the cost per minute of use?
11	Q. Yes.
12	A. Okay. If that's the case, then yes.
13	Q. It's just an assumed cost per minute of
14	use. And if you use relative loading of 50 percent
15	would you agree with me that all of your access options
16	have more than 50 percent contribution loading included
17	in the proposed prices?
18	A. I'm not sure that that's accurate.
19	Q. Can you tell me one that doesn't?
20	A. I would need to check but there may be some
21	with less than 50 percent in the tandem category.
22	Q. Does the tandem switching charge include at
23	least 50 percent of contribution loading?
24	A. I'm not sure.
25	Q. Well, the record will speak for itself. If

1 you assume a 50 percent relative contribution loading 2 then if your cost was one cent you would add one cent 3 to come up with the price, wouldn't you, come up with 4 a price of two cents? If you want to end up with a 50 percent 5 Α. б contribution, yes. 7 Ο. And so the price for the low cost one cent service would be the same with absolute loading or 8 relative loading? 9 In this example, yes. 10 Α. And if you applied the same methodology to 11 Q. 12 an access option that had a cost to U S WEST of two 13 cents, then -- and used 50 percent relative contribution loading, you would have to add two cents 14 to the -- to come up with a price, a price of four 15 16 cents; is that correct? 17 Α. That's correct. 18 And in the case of the three cent option, Q. 19 the one that costs three cents per minute for U S WEST 20 to provide, you would add three cents per minute to 21 come up with a 50 percent relative contribution loading 22 for a price of six cents; isn't that right? Yes. In this example that's right. 23 Α. 24 And therefore the difference in cost to U S Ο. 25 WEST between providing the highest priced option and

1 the lowest priced option, is two cents; isn't that 2 correct? 3 Α. Yes. But with your 50 percent contribution 4 Q. loading the price difference would be four cents? 5 6 Α. Yes. 7 Am I right. So if you use the relative Ο. 8 contribution loading method that you're proposing the 9 price difference wouldn't reflect the cost differences 10 at all, would they? 11 Α. I don't know how you come to that last 12 conclusion. 13 Ο. What's wrong with that conclusion? If each of these options has the same 50 14 Α. percent contribution level, then in my mind the price 15 differences would reflect the cost differences. 16 17 ο. Can you explain that? Beyond just repeating what I've just said, 18 Α. 19 I don't know what more one can say. That if the 20 amount of money that the firm is receiving is -- half 21 of it covers the basic direct costs of the good that's 22 being sold and the other half is contribution to 23 common costs then -- and if that's true of the high 24 priced item as well as the low priced item, the high 25 cost item as well as the low cost item, then in my

1 mind both offerings are offering the same -- providing the same degree of contribution to the firm of -- for 2 3 the service that's being sold. It's kind of like -- I 4 don't know if we were selling cars or something like that it's hard for me to imagine that one would say 5 6 for a luxury car versus an economy car that you should 7 have the same amount of contribution per passenger that the car would carry. That is not a reasonable thing in 8 my mind. If you have a luxury car or a car with a 9 10 price tag of \$20,000 -- well, let's see. I haven't bought a new car in a while. I'm going to have trouble 11 with the prices here. But let's just say this was a 12 13 few years ago and you have a \$20,000 car versus a \$10,000 car and they both carry four passengers, in my 14 mind it would be quite reasonable that you would have 15 16 the same percentage contribution on or you might even 17 have a higher percentage of contribution on the \$20,000 car than the \$10,000 car, but to say that you have got 18 19 to have \$500 contribution per passenger would not be a reasonable kind of thing to do. 20

21 Q. Well, wouldn't you look at what it costs --22 to determine the contribution on that car wouldn't you 23 look at what the costs to the manufacturer building 24 that car would be?

25 A. That's certainly one of the inputs, yes.

Q. Isn't that what this exhibit gets at, the
 cost is the assumed cost to U S WEST of providing the
 service?

A. That is what you have told me your exhibit5 represents, yes.

6 MR. MUTSCHELKNAUS: Your Honor, I would ask 7 that you mark your copy of the exhibit to change the 8 three cent figure to four cents in the column price with equal contribution, the last entry there. 9 10 JUDGE ANDERL: I made that change. MR. MUTSCHELKNAUS: With that change I would 11 12 move to have it admitted as a demonstrative exhibit. MR. OWENS: I object completely. There's 13 14 certainly been no foundation for the column on the right side called unearned cost disadvantage. The 15 16 witness has stated she disagrees with the portrayal and 17 if the IAC wants to sponsor this through their own 18 witness I think that's appropriate, but I don't think 19 they can get it in through Dr. Wilcox on the basis of 20 the record so far. JUDGE ANDERL: I tend to agree with that. 21

22 MR. MUTSCHELKNAUS: All right. We'll put 23 it in through our own witness then. Or some other 24 witness. Leave that as an open possibility. 25 Q. Let's go on to a different area, Dr.

00622

1 Wilcox. Refer you back to your direct testimony, page 2 21. JUDGE ANDERL: Mr. Mutschelknaus, I'm not 3 4 putting pressure on you. I just am curious. Do you think you will be through with your questions by noon? 5 6 MR. MUTSCHELKNAUS: Be close. 7 JUDGE ANDERL: Okay. Dr. Wilcox, I'm referring specifically to 8 Q. lines 6 through 8. And your statement there that the 9 10 tandem switching rate has been set using long-run incremental cost floor in a modest contribution level. 11 12 Do you see that? Yes, I do. 13 Α. Like to test that assertion a bit. Can you 14 ο. 15 tell me what currently your proposed rate is for the 16 tandem switching charge? Yes. It's .-- well, let me put this in 17 Α. 18 terms of cents. It's .3306 cents. 19 Ο. Now, if you could refer to C-66, the final page of that exhibit, which is what we had alluded to 20 earlier. That's the switched access service cost 21 22 study. 23 Α. Yes. 24 Please don't mention any numbers here. Ο. 25 Again we're talking about a confidential exhibit, but

00624 1 at least look over there at the -- you see that the 2 tandem switching categories is the second box on that 3 page? Yes, it is. 4 Α. 5 And does that reflect U S WEST's most Q. 6 recent analysis of what the cost to the company is in providing the tandem switching service? 7 Yes, it is. 8 Α. And without giving the number, would you 9 Ο. 10 agree with my portrayal that the ADSR cost is less than half of what the proposed price is? 11 12 Α. Yes. And that the ASIC cost -- excuse me -- that 13 Ο. the proposed price for tandem switching is over six 14 times the ASIC cost. Would you agree with that? 15 16 Α. Yes. 17 ο. And do you believe that that is a modest 18 contribution level? 19 Α. Well, this is going to be difficult to 20 discuss without discussing the numbers. And I am not 21 quite sure how to address that. Let me say this much. 22 When I say modest contribution I am referring 23 specifically to ADSRC cost, and as would be indicated 24 by the exchange we've just had, there is in the case 25 of tandem switching, there is a large difference

1 between ADSRC and the ASIC cost. And also when I use 2 the term modest contribution, I am doing it in the 3 context of switched access service as a whole, and 4 also in the context of looking at tandem switched 5 transport, a comparison to the direct trunked transport 6 options, so it's the whole array of relative 7 contribution levels that I'm looking at when I make 8 that statement. And compared to the other amounts of 9 contribution that are present in the other pieces of 10 transport service -- I am sorry -- switched access service and compared to the other transport options, 11 12 then, yes, I believe this is a modest amount of 13 contribution. Go to page 29 of your direct testimony. 14 ο.

15 pages 23 through 25 you make the statement that -16 well, let me state -- let me begin with a different
17 question. Is your proposed Washington intrastate price
18 for tandem switching different than the price that
19 you're charging at the interstate level?

20 A. Yes, it is.

21 Q. Is it higher or lower?

22 A. It's higher than the intrastate price.

Q. And you make the statement on lines 23
through 25 that the FCC's approach produces a -produces an initial price that is below the long-run

1 incremental cost of the tandem switching function. Do 2 you see that? 3 Α. Yes, I do. Can you tell me what the FCC price is? 4 Ο. 5 I believe I have it here. If you will give Α. б me a minute I can. 7 Q. Perhaps I can help you. We have marked as Exhibit 68 an excerpt from the U S WEST FCC tariff. 8 9 Yes, I have that. Α. 10 MR. MUTSCHELKNAUS: And I would note for 11 the record there is handwriting on the bottom says 12 LDS 12. That is handwriting that was on the exhibit in 13 another proceeding so it's not in the tariff itself. Is the current interstate charge included 14 ο. in this exhibit? 15 I believe that it is, and I can confirm 16 Α. 17 that later. I would also make note of the fact that 18 U S WEST has filed a new set of prices with the FCC 19 that is now pending before the FCC that is somewhat 20 different from this. 21 Would you accept subject to check that the Ο. 22 tandem switching charge that is currently being charged by U S WEST on the interstate level is .000974? 23 24 Α. Yes, I would. 25 Do you have any reason to believe this is Q.

1 not an accurate excerpt from the current U S WEST 2 access service tariff? 3 Α. No, I don't. 4 MR. MUTSCHELKNAUS: Move its admission, 5 Your Honor. 6 JUDGE ANDERL: Any objection to Exhibit 68? 7 MR. OWENS: No, Your Honor. JUDGE ANDERL: It will be admitted. 8 9 (Admitted Exhibit 68.) 10 Ο. Referring back, Dr. Wilcox, to C-66, again 11 without mentioning the numbers look again at those 12 cost numbers for tandem switching. I'm sorry. This is a lot of paper to 13 Α. shuffle. Okay. 14 15 Is the ASIC cost less than the interstate Q. 16 charge? 17 Α. It is. Indeed it's less than half the interstate 18 Q. 19 charge? Excuse me, I will correct that. 20 Approximately half the interstate charge? 21 Α. I would accept that, but I would not accept 22 that that is the relevant comparison to make. 23 Q. Why is that? 24 Α. As we've noted before, there is in the case 25 of tandem switching there is a high degree of shared

1 residual cost, and this represents the fact that the 2 tandem switch is shared by switched access and toll 3 services primarily and also some amount of local 4 switching is involved in tandem switching, and those 5 shared residual costs represent actual costs of the 6 tandem switch that need to be recovered from that 7 group of services that uses the tandem switch and 8 switched access is a significant share of that. And 9 therefore it would be inappropriate to set a price for 10 tandem switching charged to interexchange carriers 11 that does not contain any of those shared residual 12 costs coverage in it. That would leave those shared 13 residual costs to be recovered from the other 14 customers, the other services that use that tandem switch. 15 16 Ο. I will get into that issue with Mr. Farrow,

10 Q. I will get into that issue with MI. Fallow, 17 but would you at least agree with me that the proposed 18 intrastate charge exceeds the current interstate 19 charge by three times over?

20 A. Yes, it does.

21 Q. Yet your cost of providing the service 22 doesn't alter at all whether it's interstate or 23 intrastate, does it?

A. No, it does not. It's the same facilityused for both interstate and intrastate service.

Dr. Wilcox, does U S WEST have any 1 Q. 2 competitors currently in Washington providing tandem 3 switching service? I believe so. 4 Α. 5 Q. Who? б Α. Well, when I look at the sales material that has been published by Electric Lightwave, they do 7 8 indicate that they're providing a tandem switched access service, switched access service in the state. 9 10 Ο. So are you modifying your response to IAC data request 1-19? Do you have that? 11 12 Α. No, I don't. 13 Ο. Do you have your response to IAC 1-19 in front of you? 14 15 Α. Yes, I do. And you're listed as the responsible 16 Q. 17 witness for this response; is that correct? 18 Α. That's correct. 19 Q. And you're discussing the tandem switching 20 signaling, and if I can just read the last sentence of 21 your response. It's a lengthy response. "While no 22 competitors have actually ordered this option to date 23 in Washington, several competitors located in 24 Washington are known to own switches that are capable 25 of serving the tandem switching function. So you

1 stated there as recently as whenever this was responded 2 to that no competitors have ordered the tandem -- all 3 of the signaling required. Are you changing your 4 response?

5 Α. No. I think the questions were a little bit 6 different, and that's why I responded differently. In 7 the case of the data request what I'm talking about is a situation in which a competitor would provide a 8 9 tandem switching function to connect in with U S WEST's 10 local switching function and that does require expanded interconnection, and the provisions that I discussed 11 here with the tandem signaling option. And that has 12 13 not taken place yet, although as you quoted from my response, I do believe that there is more than one 14 company present in the state of Washington now that has 15 the physical capability of doing that. None of them 16 17 have actually ordered that from the interstate tariff 18 yet.

19 The response that I gave to your question, 20 Mr. Mutschelknaus, what I had in mind was a situation 21 in which a competitor would provide the end to end 22 service all the way from the carrier's POP out to an 23 individual customer's location. If they would have 24 large business customers that they were serving or 25 something like that, that I believe from the sales

material that I referred to earlier it would indicate
 that Electric Lightwave is offering that as an option.
 Q. Would you agree that that's a very limited
 application?

5 A. I don't know how limited it is to tell you 6 the truth. We're seeing more and more discussion of 7 those kinds of applications.

8 Q. Would you agree that it would apply to 9 more than one percent of the originating calls in 10 Washington?

11 A. I don't know.

Q. Would the fact that no competitor has yet ordered that tandem signaling capability and is not providing tandem switching that can hook into U S WEST, could that explain the fact that there's so much contribution assigned to the tandem switching charge? A. No.

18 Q. Do you feel like you've faced -- well,19 never mind. I withdraw that question.

20 Ms. Wilcox, please refer to your exhibit 21 that you went over with staff earlier, if I can find 22 it here. I think it's 52. I will have to verify 23 that. Yes. Exhibit 52 which was the sixth exhibit to 24 your rebuttal testimony regarding the impact analyses. 25 Staff asked you some questions about that earlier, do

1 you recall that?

2 A. Yes.

3 Q. Now, this data reflects your interstate usage; isn't that correct? 4 5 Yes, it does. There's no way to get the Α. 6 comparable data for intrastate because we haven't done 7 the restructure yet for intrastate. And the impact, then, is based on the 8 Q. interstate rates, is it not? 9 10 Α. Yes, it is. 11 And the pricing discrepancies, would you Q. 12 agree with me that the pricing discrepancies between 13 these options in your proposed intrastate tariff are 14 far greater than than they are in the interstate 15 tariff? What pricing discrepancies are you 16 Α. 17 referring to? The difference in price between each of the 18 Q. 19 LTR options? 20 Α. I'm not sure that they're all far greater. 21 There certainly are differences in them. 22 Q. The tandem switching charges in your 23 intrastate tariff are higher than in the interstate 24 tariff? 25 Α. The tandem switching charge is higher. I

1 haven't done a direct comparison of the tandem 2 transmission charges which one would pay along with a 3 tandem switching charge. Is the DS3 monthly charge lower in your 4 Ο. intrastate tariff as proposed than in the current 5 б interstate tariff? 7 Α. A little bit. So there's quite a difference, isn't there? 8 Q. There are differences, yes. 9 Α. 10 Ο. So the impact analyses here doesn't tell you anything about what the impact will be under your 11 proposed tariff in Washington, does it? 12 13 Α. I would disagree with that, and the reason I would is because the biggest impact here is the 14 restructure itself. We are reducing the transport 15 16 prices overall by a tremendous amount just through the 17 restructure, and I believe, as was brought out earlier today, there's something like \$24 million in transport 18 19 revenues in Washington, and after the restructure there will be something on the order of \$4 million in 20 21 transport revenues. So the transport charges are 22 coming down dramatically for everybody, for all 23 carriers, and so the differences between one option 24 and another, while I don't want to minimize the 25 importance of them, because obviously they do have a

bearing, nevertheless in the overall scheme of things
 I believe that's less important than the fact that
 there's just this great overall reduction in the
 transport charges, period, and some shifting around
 there.

6 Also, I would point out that those 7 interstate charges are U S WEST rates as well, and we 8 have indicated some willingness in other jurisdictions to engage in some discussion of different options 9 10 through settlement agreements for DS1 and DS3 prices, and tandem switching prices, and so -- I don't want to 11 portray U S WEST's position as being absolutely 12 13 inflexible on those specific price levels, but what we can't agree with is the extreme prices that have been 14 proposed by both IAC and Sprint in their testimony. 15 16 Ο. Well, maybe that's a good place to end and 17 let's just end for the few questions on that. We obviously don't share a common view on ASIC versus 18 19 ADSRC costs, and I won't belabor that point, but would you at least agree with me that everything above the 20 21 ADSRC cost represents contribution to the company? 22 Α. I would agree with that.

Q. And that's recovery of your joint andcommon costs that you incur that are not allocable toany particular cost causer?

A. That in addition to a subsidy for other
 services that are presently priced below their cost.
 Q. Do you have other rate elements in access
 service that are designed to recover such common costs
 exclusively?

б Α. That's a difficult thing to say. We do 7 have two rate elements that are pure contribution, and 8 that's the carrier common line charge and now the 9 proposed interconnection charge. Now, whether they 10 were designed to recover common costs exclusively or 11 not is a difficult thing to say, and I'm not sure if 12 it's relevant frankly, because the fact is that those 13 two rate elements do not represent any service with 14 direct costs that are associated with switched access. They represent pure contribution? 15 Q. 16 Α. They do represent pure contribution. 17 Ο. And they recover contribution from all carriers equally on a per minute of use basis, don't 18 19 they? 20 Α. Pretty much. There are a few exceptions for the carrier common line but in general that's true. 21 22 Q. Would U S WEST object to taking all of the contribution above the ADSRC costs and moving it to 23 24 recovery in the CCL or the RIC?

25 A. I do not think that would be an appropriate

1 approach to pricing. The difficulty there is that we
2 would still have a rate element that was -- that had
3 nothing to do with the service itself, and I think in
4 the long run, what we should be looking toward is
5 getting rid of rate elements like that that are pure
6 contribution rate elements, and instead have rate
7 elements that actually reflect elements of the
8 service, and have those particular rate elements each
9 contain a reasonable amount of contribution, and then
10 we don't have to deal with these sort of plug rate
11 elements like the CCL.
12 Q. Isn't that testimony inconsistent with your

13 earlier statement that all of the cost assigned above
14 ADSRC is not allocable to a particular service?

15 A. No.

16 Q. If you put all the costs above ADSRC and 17 the CCL it would avoid any discriminatory impact among 18 customers of access services, would it not?

19 A. I don't agree.

20 Q. Why?

A. You seem to be assuming that in order to be nondiscriminatory there seems to be -- that there would need to be a certain amount of contribution, a certain number of cents per minute charged contribution that would be the same for each and every carrier. I

00636

1 don't agree that that is necessarily the only way to 2 get nondiscriminatory pricing. If one carrier uses 3 services that are more expensive to provide than 4 another carrier then it would make sense to me that 5 there would be through an equal percentage contribution 6 that that carrier would pay more dollars in terms of

8 Let me give you an example. If we've got someone buying a DS3 facility at several thousand 9 10 dollars per month then that amount of money will probably include hundreds of dollars of contribution, 11 whereas if you have another carrier buying a smaller 12 13 amount or different type of transport and maybe their transport bill is \$200 per month, then they might be 14 paying -- they certainly won't be paying hundred 15 16 dollars of contribution per month, they will be maybe 17 tens of dollars in contribution per month. But as long 18 as it's reasonably relatively consistent then I don't 19 believe there's grounds for discriminatory pricing 20 there.

21 Q. Dr. Wilcox, if all of the IXCs that are 22 parties to this proceeding agree that it would be 23 appropriate to move the revenue requirement for all 24 costs above ADSRC to the CCL, why would U S WEST object 25 to that?

## 00637

7 contribution.

A. I would have to know more about why our customers would prefer a pricing structure like that. I will admit that this is a new idea to me. This is not a proposal that we have discussed previous to these hearings. It's not something that has been generally talked about in the industry, and I would need to know more about what our carrier customers view as the advantages of a price structure like that.

Certainly if there is consensus in the 9 10 industry that that would be appropriate then it's something that we need to consider, but as I say up to 11 this point in all the various dockets that I've been 12 13 involved in the various access charge filings that I've 14 been involved in, concerning switched access prices, this has not been a proposal that has been put forth 15 16 and one that we've talked about.

Q. I have one final question, Dr. Wilcox. If U S WEST is successful this summer with Congress with getting the MFJ removed and U S WEST then re-enters the long distance business, is it not true that U S WEST would be in a position to order DS3 access to every single end office?

23 A. I don't know.

Q. If that was true, wouldn't U S WEST havethe lowest cost of service of any carrier in the

00638

1 United States?

2 MR. OWENS: I'm going to object. This is 3 hypothetical piled on hypothetical. The witness has 4 stated she doesn't know the answer to the premise 5 question. It seems to me this is very far afield, Your 6 Honor? 7 JUDGE ANDERL: Mr. Mutschelknaus, I tend to 8 agree with that. I don't know if you were asking the 9 right witness in the first place. 10 MR. MUTSCHELKNAUS: I will end it there. 11 Let me just check and see if all the exhibits we have 12 talked about have been admitted. JUDGE ANDERL: I will tell you what I've 13 14 admitted. How's that? We started numbering with this 15 witness with Exhibit 58. The exhibits that have been 16 admitted are C-61, C-66, 68, 69, C-70, C-71. And you 17 can just take it up after lunch if we've missed 18 anything. 19 MR. MUTSCHELKNAUS: Well, let me just touch 20 on one other because Dr. Wilcox is listed as the 21 designated witness on this. C-63. 22 Q. Dr. Wilcox, in response to questioning from Ms. Proctor earlier, you had referred that there were 23 24 earlier private line cost studies you used on setting 25 the initial dedicated rates. Are those included as

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00640
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1 C-63? 2 A. I believe these are the ones. 3 MR. MUTSCHELKNAUS: I would move their 4 admission. 5 JUDGE ANDERL: Any objection to that 6 exhibit? 7 MR. OWENS: No, Your Honor. 8 JUDGE ANDERL: Exhibit C-63 will also be 9 admitted as identified. Is that it, Mr. 10 Mutschelknaus. 11 (Admitted Exhibit C-63.) MR. MUTSCHELKNAUS: I believe so. If 12 13 there's any I've missed I will correct it after lunch. 14 Thank you, Your Honor and Dr. Wilcox. JUDGE ANDERL: We will be on recess for 15 16 lunch for an hour and 15 minutes and pick up with 17 Sprint when we come back. 18 (Lunch recess taken at 12:07 p.m.) 19 20 21 22 23 24 25

1 AFTERNOON SESSION 2 1:30 p.m. 3 JUDGE ANDERL: Let's be back on the record 4 after our lunch recess. Ms. Lehtonen, we'll go to you 5 for cross of this witness. 6 MS. LEHTONEN: Thank you. 7 CROSS-EXAMINATION 8 BY MS. LEHTONEN: 9 Good afternoon, Ms. Wilcox. Q. 10 Α. Good afternoon. 11 I just have a few questions. Mrs. Wilcox, Q. 12 are you generally familiar with the reference to 13 DS1/DS3 crossover ratios? Yes, I am. 14 Α. 15 Ο. And what is a DS1/DS3 crossover ratio? What 16 does that refer to? 17 Α. Generally when someone uses that term 18 they're referring to a formula that the FCC used to 19 come up with their benchmark for relationship between 20 DS1 and DS3 transport prices, and basically what that 21 consists of is a calculation of a 10-mile circuit 22 including the entrance facility for a DS1 service 23 compared with the same calculation for DS3 service. 24 So if there was a crossover ratio of six to Q. 25 one what would that mean?

That would mean that the price of a DS3 1 Α. 2 service would be six times the price of a DS1 service. 3 Q. And as we discussed earlier, a DS3 has 28 DS1 capacity in it. Is that correct? 4 5 Α. That's the relative capacities of the two б services, yes. 7 Ο. What is the crossover ratio in U S WEST proposal for the intrastate DS3/DS1 rates? 8 9 I haven't -- I don't actually know what it Α. 10 is in detail. I note that that number was contained in 11 the testimony of a couple of the intervening witnesses. 12 Ο. What is the crossover ratio of U S WEST 13 DS3/DS1 in the interstate? I believe that with the current prices it is 14 Α. 15 9.1. It is somewhat different from that in the prices that we have just filed with the FCC. 16 17 ο. And is your proposal on the intrastate side 18 a lower ratio? 19 Α. Yes, it is a lower ratio. Is it somewhere in the vicinity of five to 20 Q. 21 one? 22 Α. I believe that would be approximately 23 accurate. 24 So, does this mean that if a customer wanted Ο. 25 or had traffic that would fill six DS1s that it would

1 actually be more economical for it to purchase one DS3? 2 Α. That's certainly what the ratio would suggest. I would also like to point out that this 3 4 benchmark that was established by the FCC is just for one particular service configuration, and that is for 5 6 10 miles of interoffice transport plus an entrance 7 facility, and so it really does not take into account the full array of DS1 and DS3 prices at other mileages, 8 but as a benchmark, yes. That's what it would 9 10 indicate.

11 Q. That's all I'm trying to use is just a 12 benchmark figure here. So, and if that was true, an 13 ISRXC for example that had traffic volumes that could 14 fill six DS1s would find it, as you just suggested, 15 would make it more economical to purchase a DS3 but 16 then there would be 22 DS1 capacities left over not 17 being utilized. Isn't that true?

A. In that particular instance it would be true. What we're finding from experience is that carriers are finding ways to make use of a lot of that capacity as well. I would like to point out that at the entrance facility that the traffic is aggregated from a lot of these transport routes and there is a lot of opportunity at the entrance facility to use larger service such as a DS3 service and that would not be

1 portrayed in the simple crossover ratio that we're 2 calculating here. 3 Q. But generally -- I mean, as far as network 4 efficiency goes, it would probably be not quite as 5 efficient to purchase a DS3 for six DS1 capacities as 6 it would if you were going to utilize the full six DS1 7 agency. Isn't that correct? 8 A. Well, I think that depends upon your 9 definition of efficiency. If you're talking about full 10 utilization of facilities that certainly would be true,

11 but I think when engineers design networks they take 12 into account more than that. They also look at the 13 relative costs of going one way versus another way, and 14 often will have some spare capacity here and there as a 15 consequence of that.

16 Q. But this is three times the spare capacity,17 wouldn't you generally agree with this description?

18 A. In that particular instance that's what it19 looks like.

20 Q. Thank you.

MS. LEHTONEN: I have no further questions.
JUDGE ANDERL: Thank you, Ms. Lehtonen.
Ms. Weiske.

24 MS. WEISKE: Thank you.

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2	CROSS-EXAMINATION
3	BY MS. WEISKE:
4	Q. Afternoon, Dr. Wilcox.
5	A. Good afternoon.
6	Q. I thought you said earlier to Ms. Proctor
7	that there were no direct costs associated with the
8	carrier common line charge; is that correct?
9	A. That's correct. No direct access costs.
10	Q. And in fact there's no ASIC associated with
11	the carrier common line charge, is there?
12	A. That's true.
13	Q. And in fact there's also no ASIC associated
14	with the interconnection charge is there?
15	A. That's true.
16	Q. And I also thought you said earlier in
17	response to some questioning that you were trying to
18	price similarly situated or I think you called them
19	like services you wanted to price the same pursuant to
20	an earlier private line decision from this Commission.
21	Do you recall generally that exchange with Ms. Proctor?
22	A. Yes.
23	Q. What specific rates were you referring to in
24	that private line decision?
25	A. I was not referring to specific rates in

1 that decision but rather to the concept that was 2 expressed in the Commission's order in that docket, and 3 I was suggesting that the same concept should be 4 applied generally and also specifically in the case of 5 these transport prices.

Q. Well, rather than raising those prices to
MCI-like services, as you refer to them, couldn't
you also decrease prices for the other service to
similarly price them?

That certainly would be an option but that 10 Α. would -- we have no reason right now to believe that 11 those other services are inappropriately priced, and I 12 13 think the comparison that I presented in one of my exhibits -- I forget which one right now -- of U S WEST 14 prices versus other suppliers' prices for DS1 and DS3 15 16 services bear that out that those at the present time 17 seem to be appropriate market prices and therefore we are basing the switched access transport prices on the 18 19 existing private line prices that have evolved by being in the marketplace for some time. 20

21 Q. But I think earlier I asked you and I 22 thought you agreed with me that you could also price 23 like services similarly by reducing the price of the 24 service A down to the price for service B. Wouldn't 25 that also be the case? You could do that?

Yes, we could do that. What I was 1 Α. 2 explaining to you was why we chose not to do that. 3 Q. Yes, and I think I understood your 4 explanation. Do I recall correctly that you did agree 5 earlier that total service long-run incremental cost 6 equals ASIC? 7 Α. If we're speaking of just the one product or service, then yes. 8 Well, Mr. Farrow at page 2 of his rebuttal 9 Ο. 10 testimony, footnote 1, says "it's equivalent." Do you 11 disagree with that? 12 MR. OWENS: Shall we put Mr. Farrow's 13 testimony in front of the witness if she's going to be 14 cross-examined on the text? 15 MS. WEISKE: I would be happy to have that 16 copied. I have it from memory from my questioning 17 yesterday. JUDGE ANDERL: It occurs to me that this 18 19 information is already on the record, is it not? I 20 believe this was asked and answered. MR. TROTTER: Different witness. 21 22 MR. WAGGONER: Different witness. 23 MS. WEISKE: It was a different witness and 24 I'm going somewhere with this so if you will let me ask 25 a couple of questions.

JUDGE ANDERL: That's fine. If the witness 1 2 could refer to Mr. Farrow's rebuttal testimony, page 2. 3 Q. Do you agree with that statement? In the footnote? 4 Α. 5 Q. Yes. 6 Α. Yes, I do, and I would call your attention 7 to the fact that it says specifically service TS LRIC. Q. So do you believe that total service 8 9 long-run incremental cost, or ASIC as it's qualified in 10 that footnote, is the appropriate test for cross 11 subsidy? 12 Α. I think you're getting into areas that I 13 need to defer to our cost expert on, Mr. Farrow. Do you think that ASIC is the appropriate 14 Q. 15 price floor? I believe I already testified that I do not 16 Α. 17 believe that it's the appropriate price floor for 18 switched access service. 19 Q. Do you feel it's the appropriate price floor 20 for any set of services? I can conceive of circumstances in which it 21 Α. 22 might be. Do you have a particular circumstance in 23 Q. 24 mind? 25 Α. Not really.

1

Q. I'm sorry, go ahead.

2 Α. It would depend to a large extent on what 3 the shared residual costs might be associated with that 4 service, and what the other services were that shared 5 in those costs.

б Q. Are you somehow trying to say that if 7 there's a particular quantification for the shared 8 residual costs it might or might not be appropriate to 9 use that as part of the cost floor?

10 Α. No. I'm not trying to suggest that there's a certain number that would determine that. I'm just 11 saying that that's one of the considerations. 12

13 Ο. Is there any other consideration that you would look at as to what the appropriate test for cross 14 subsidy is? 15

There probably are a number of other 16 Α. 17 considerations. Did you say for cross subsidy? MR. OWENS: Yes. That's what she said. 18 19 Α. I don't know about cross subsidy. 20 So I understand your answer, anything as to Ο. cross subsidy I should ask Mr. Farrow and as to the 21 22 appropriate price floor you think there may be some instances but you don't have anything in mind 23 24 particularly where ADSRC would not be the appropriate 25 price floor?

That's correct. 1 Α. 2 Q. But you don't have any particular 3 circumstance in mind? No, I don't. 4 Α. 5 MS. WEISKE: That's all I have. Thank you. 6 JUDGE ANDERL: Thank you, Ms. Weiske. Next 7 person I have who had given me a time estimate for any 8 cross was Mr. Ganton. 9 MR. GANTON: My questions have been asked. 10 JUDGE ANDERL: Thank you. Are there any 11 other intervenors who wanted to cross who hadn't had a 12 chance? Mr. Rindler. MR. RINDLER: Just have a couple of 13 14 questions. 15 CROSS-EXAMINATION 16 BY MR. RINDLER: Q. Good afternoon, Dr. Wilcox. 17 18 A. Good afternoon. 19 Q. If you turn to page 31 of your direct 20 testimony. Question and answer that begins line 10 is 21 where I'm going to be focusing on, no specific 22 language. Dr. Wilcox, why should local transport 23 restructuring be revenue neutral? 24 Actually, the restructure of the transport Α. 25 charges itself is not revenue neutral. What our filing

consists of is a revenue neutral proposal for switched
 access service as a whole.

3 Q. And let me amend my question then. Why 4 should switched access services as a whole be revenue 5 neutral?

6 A. Well, as I've testified in the long run I 7 don't believe it should be, and we have proposed 8 reductions in the rate case. It's just that in this 9 particular docket since switched access service and 10 local interconnection service are the only prices under 11 consideration, there's not an opportunity to do the 12 needed rate rebalances, and that is the reason why we 13 have presented a revenue neutral proposal in this 14 docket.

Q. Let me see if I understand it. What you're saying is that you presented a proposal that would allow you, you the company, to obtain these same revenues based on the restructured services; is that pright?

20 A. That's correct. The same switched access21 revenues.

22 Q. How does revenue neutrality deal with growth 23 and demand?

A. When I say we have a revenue neutralproposal that is on the assumption of other things

1 remaining equal. Now, we all understand that at the 2 same time this is a growing service and regardless of 3 whether we restructure the rates or not as a growing 4 service the revenues are going to grow along with the growth in the traffic. 5 6 ο. So in fact you expect that you will be 7 obtaining more revenues than previously from switched access services; is that correct? 8 Yes, but not as a result of the restructure. 9 Α. 10 Ο. In the competitive industry, do competitors obtain revenue neutrality for price exchanges? 11 12 Sometimes yes and sometimes no. Α. 13 Ο. Is the concept of revenue neutrality related to what Dr. Owens -- or Mr. Owens was talking about 14 yesterday of revenue requirement? 15 16 Α. Yes. It's certainly related to the fact --17 the fact that we presented a revenue neutral proposal 18 in this docket is closely related to the fact that we 19 are under rate of return regulation and do have a 20 revenue requirement. 21 Would you agree with what Mr. Owens said Ο. 22 yesterday that in fact a revenue requirement does not mean that you have to obtain that amount of revenue? 23 24 Yes. I would agree that it means we don't Α.

25 necessarily obtain that amount of revenue.

Do you know why U S WEST found it necessary 1 Q. 2 to create an entirely new concept of average direct and 3 shared residual cost? I think I'm going to have to defer that 4 Α. question to Mr. Farrow. 5 6 MR. RINDLER: I have no further questions. JUDGE ANDERL: Mr. Trotter. 7 MR. TROTTER: No questions. 8 9 JUDGE ANDERL: Questions from the 10 Commissioners for this witness. CHAIRMAN NELSON: I pass. 11 12 COMMISSIONER HEMSTAD: I will pass also. COMMISSIONER GILLIS: I have a couple. 13 14 15 EXAMINATION 16 BY COMMISSIONER GILLIS: 17 ο. I wanted to have a clarification of a 18 response that you made to question from staff counsel 19 this morning. Do you remember a discussion where you 20 were explaining why you used ADSRC as the appropriate 21 basis for dialing contribution of switch access? 22 Α. Yes. 23 As I wrote down your response you said Q. 24 because the objective was to evaluate contribution to 25 common costs rather than contribution to shared costs.

1 Did I write that down right?

2 A. Basically, yes. That was my intent to show3 the contribution to common costs.

Q. Would you explain to me at least your
understanding of what the difference between common
costs and shared costs are in that context?

7 Α. I will make some attempt, but I would also suggest that you might want to ask Mr. Farrow again on 8 this, but my understanding of it is that the shared 9 10 costs would belong to that group of products that use a particular facility, and the example that I would use 11 again would be the tandem switch because not all 12 13 products and services that the company sells use the tandem switch, but a group of products do, and switched 14 access is one of them. Toll service is one, and to a 15 16 limited extent local service uses a tandem switch.

And so once you have found all of the direct costs that can be directly attributed to those three services then there are still some costs associated with the tandem switch that you still haven't pinned down, so to speak, and those are the shared costs, and in my mind it's very appropriate to price those three services together so that together they recover those shared costs of the tandem switch. And you still haven't addressed contribution to common costs of the

whole firm yet, but you at least have addressed the question of recovering the costs of that tandem switch. Q. So the shared costs as you're describing them are costs that are directly attributable to a service in question and common costs can be as a broader term that includes more overhead as well -- it includes shared costs but more. Is that what you're saying? I'm just trying to rephrase what you're saying?

10 A. Yeah. I would say that shared costs can be
11 attributed to a group of services. They're shared
12 amongst the group of services but they're not shared
13 for the whole firm.

14 Q. Okay. I will ask Mr. Farrow that. I will15 keep trying to understand it. I am sure I will in two16 weeks, I hope so.

A. And I'm sure he can do a better job than I.
Q. All right. On page 26 of your rebuttal you
made a statement beginning at line 10, "because some
parties think" -- and I will fill in transport prices
-- "are too low and others think they are too high we
conclude that they must be just right." Would you
explain that statement to me. What's the economic
logic behind that statement?

25 A. Well, it's a little bit like goldilocks and

1 the three bears, I suppose. I was really just trying to point out the fact that we had proposals from some 2 3 parties saying that some of the transport prices should 4 be lower and then other parties or one other party 5 suggesting that some of the transport prices should be 6 higher, and I was just trying to point out that we had 7 these disparate opinions, and of course I support my own proposal and feel that those prices are just right. 8 But the term just right. That's what I'm 9 Q. 10 trying to get at. The way I read between the lines on that is that you're saying just right is essentially 11 what the market will bear and that's kind of a market 12 13 approach of some people think it's too low, some people think it's too high? What does just right mean? 14 Yes. What I am attempting to do here is to 15 Α. 16 come up with a price that would be right in the 17 marketplace that would not handicap U S WEST as these services are becoming increasingly competitive but at 18 19 the same time not unduly give up revenue that we don't need to give up. And it's a balancing act. There is 20 no formula that can give us the just right answer. But 21 22 this is our attempt to come up with the just right price for the market place. 23

Q. Then I would ask you about a statement atthe bottom of page 27 in your direct testimony.

Beginning at line 22 about halfway across. "At the same time it would be a mistake to price strictly in accordance with costs as that would fail to take into account market factors that are equally important in setting an appropriate price." I think that follows what you were saying, and I know you've responded to this in different ways?

8 A. I'm sorry, I'm not following.

9 Q. Page 27?

10 JUDGE ANDERL: Direct.

11 Q. Beginning on line 22.

12 A. Okay.

13 Ο. Maybe if we just start and explain that statement to me, your thoughts behind that statement of 14 that, especially that it would be a mistake to price 15 16 strictly according to cost. And the part that follows? 17 Α. Yes. It seems to me that there are a lot of 18 factors that feed into the pricing decision. Costs 19 certainly being an important factor but not the only 20 factor. In this case we have other information that we 21 can use and we can go on and most notably we have the 22 information about the existing prices that are there 23 for the direct trunk -- the dedicated transport 24 facilities, and that includes both the entrance 25 facilities and the voice grade, DS1 and DS3 direct

trunk transport, and that's certainly a very important
 market factor to take into consideration.

3 Now, we're a little bit more in the dark 4 when it comes to the tandem switched transport because 5 we don't have a price of an equivalent service that we 6 can just grab on to, but we also have some guidelines 7 that can be used there, and when I look at the fact 8 that it is one more transport option, that it probably 9 will be becoming increasingly competitive as these new 10 entrants come into the marketplace with their switches 11 that I'm attempting to set a price for the tandem switched transport which includes both tandem switching 12 13 and tandem transmission that would be somewhat in line 14 in terms of the amount of market up over cost or the amount of contribution. 15

16 Q. I can't remember in your testimony whether 17 you used the terms essential services and nonessential 18 services, the distinction between the two. Mr. Owens 19 did in his testimony, I know.

20 A. I don't recall addressing that in my21 testimony.

Q. Do you know what -- do you remember what
Mr. Owens -- how he defined essential services?
A. I believe I remember some of that
discussion.

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Q. Would that same statement that it would be a
 mistake to price strictly in accordance with costs hold
 true for essential services also or only for

nonessential services?

5 Α. Well, I'm not sure that I would advocate a б strict absolute tied to cost kind of pricing even for 7 essential services but the factors would be somewhat 8 different. What I would say is that for nonessential services where there's competition for those services 9 the costs of choosing wrong on the pricing are greater 10 because of the possibility of undue competitive losses 11 if you price too high. 12

13 Ο. As I understand the concept behind essential services those are services that are needed by the 14 interconnector for which there are no other options, in 15 16 other words there's not another market opportunity and 17 so if they were priced above cost, the owner of those services, incumbent, in the context we're talking about 18 19 would have a price advantage by not pricing above -- or pricing them at cost; is that right? The market for a 20 21 monopoly service is quite a bit higher than cost if you 22 have to have that service. Are you following what I'm saying? So if you charge a market price above cost for 23 24 an essential service then the incumbent is going to 25 have the advantage in the market. That's how I

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4

1 understood an essential service anyway is it's a
2 service that the interconnector, the AEC has to have to
3 do business, and I think that -- I can ask Dr. Farrow
4 when he comes up but I thought the testimony was -- of
5 Mr. Owens was that those services should be priced at
6 ADSRC for essential services?

7

For essential services?

8 Q. Yes.

Α.

9 A. I'm not sure I recollect the exact testimony 10 you're referring to but I don't believe he advocated 11 that they be priced at ADSRC but that they be priced 12 above ADSRC.

Q. I will follow up on that later. I guess on
this same line 5, would you agree that market-based
pricing only makes sense when the conditions for
sustainable competitive markets are in place?
A. Not really because I think that we have to

17 A. Not really because I think that we have to 18 start preparing for those sustainable competitive 19 markets as they are emerging and evolving, so even 20 though there may not be what some would consider to be 21 a fully competitive market yet for some of these 22 services, I think it behooves us to begin using market 23 factors in the pricing of these services.

24 The cost of not doing so is that you set up 25 market conditions that Dr. Harris referred to when he

talked about his term for it was cream skimming where
 you set up situations where you can have uneconomic
 entry into a market.

Q. Last question. On page 16 of the direct you discuss the three stages of competition with stage 3 being -- I guess I can describe as the most advanced where there is more extensive reach into the market, reaching the small businesses and the residences, and you noted there that Rochester, New York is an example of a location where competition is beginning -- you used the word beginning -- to be offered on a more widespread market basis --

13 A. Yes.

14 Q. -- compared to other places in the country I 15 guess is what that means?

16 A. Yes.

Q. Could you share with me a little bit about
why that's occurred in Rochester, why market
competition has reached a greater depth at this point
or beginning to reach greater depth in Rochester versus
some of the other areas in the region where there's
beginning to be an opening up of full competition?
A. I'm not sure that I am the person who can
discuss this best with you. My understanding of the
situation in Rochester, there are several factors there

1 that may not be present in other places including the active participation of a cable TV company, namely Time 2 3 Warner in that city, some provisions for resale of 4 local service. I'm really not sure of all the details. 5 I guess what I'm saying here is that I would anticipate 6 that those kinds of circumstances will -- if they can 7 develop in Rochester, New York they will be developing 8 in other cities as well, that I would not consider that 9 to be an isolated phenomenon, and when I say that I'm 10 thinking in particular of the interest of telephony over cable TV. That seems to be something that a 11 number of parties are interested in including some --12 13 the parties to this proceeding. And therefore I do expect to be seeing more activity along those lines. 14 Thank you Dr. Wilcox. 15 Q.

16

EXAMINATION

17 BY CHAIRMAN NELSON:

Q. Dr. Wilcox, I just have one related question. On page 1415 of your testimony you refer to the first stage of competition, that being brought by what we referred to as competitive access providers or CAPs, and on page 15 you say that has been taking place in Washington for sometime now and has impacted U S WEST private line and other businesses. Yesterday Mr. Sowens was asked the question of whether he knew what

1	the market share of the CAPs is in Washington and he
2	did not know. Do you?
3	A. No, I don't. Market share figures are not
4	something that are easily come by. We do have some
5	information about the effects of this competition on
6	our private line business in the state of Washington,
7	and so I can say with confidence that it has had an
8	impact on us, but I do not have actual market share
9	data. I don't know what the market share is.
10	CHAIRMAN NELSON: Thank you.
11	MR. OWENS: For the record, Madam Chairman,
12	I think Mr. Owens also testified that he was aware that
13	U S WEST had asked certain of the parties in this case
14	who are CAPs for such information and data requests and
15	we had not received any market share information.
16	JUDGE ANDERL: Anything else for this
17	witness from the bench?
18	Redirect?
19	MR. OWENS: Thank you, Your Honor.
20	REDIRECT EXAMINATION
21	BY MR. OWENS:
22	Q. Dr. Wilcox, are you aware of whether
23	interexchange carriers currently in Washington purchase
24	transport services from other providers than U S WEST?
25	A. I believe that they do.

25

1 Q. And do you know whether or not if they do 2 that that would require capital investment on the part 3 of such interexchange carriers? It may or may not. Just like it may or may 4 Α. not require capital investment from a carrier when they 5 6 purchase transport from U S WEST or change the 7 configuration of their transport with U S WEST. Are you aware of whether or not U S WEST has 8 Q. in the past lost any competitive bids for transport 9 10 service to other providers? 11 Yes, we have. Α. 12 0. In the state of Washington? 13 Α. Yes, we have in the state of Washington. Would you or would you not characterize your 14 Q. proposal for LTR and expanded interconnection as 15 16 opening up that phase of access to competition more 17 than it is open today? Yes, I would, and I think that's an 18 Α. 19 important point to recognize about the expanded interconnection proposal is that it does open up the 20 21 transport portion of switched access to competition 22 just like private line services are open to competition 23 today. 24 Is it your belief that all interexchange Ο.

carriers want to continue buying their transport

1 services in U S WEST's service territory exclusively 2 from U S WEST? 3 MS. PROCTOR: Object to the question. It 4 calls for speculation. 5 JUDGE ANDERL: I'm sorry, could you repeat 6 the question? 7 MR. OWENS: I asked her for her belief. I 8 asked her if it was her belief whether all 9 interexchange carriers want to continue to purchase 10 their transport service exclusively from U S WEST in 11 U S WEST's service territory. 12 JUDGE ANDERL: I will allow the question. 13 Α. I would expect that they would appreciate having a variety of suppliers for the transport 14 services, although I would hope that they would 15 16 continue to purchase them from U S WEST. 17 ο. Do you know whether or not today interexchange carriers connect directly with any 18 19 alternative exchange providers for interstate long 20 distance services? 21 Α. I believe that is the case, yes. 22 Q. And in some instances is it possible for 23 cross-state calls to be passed by such long distance companies over those same facilities? 24 25 Α. Yes. It certainly is and any time you have

1 facilities set up to carry long distance calls then 2 both interstate and intrastate calls can be routed over 3 those facilities, and it's my understanding that they 4 normally are routed together because it would be 5 inefficient to separate them so any time you have an 6 arrangement like that for interstate calling I would 7 expect intrastate calling to be carried on it as well. You were asked in a number of questions by 8 Q. counsel for IAC about your proposal for transport, and 9 10 I just want to make clear. Is U S WEST in this case proposing any new rates for DS1 or DS3 transport? 11 12 No, we're not. We are proposing the Α. 13 application of existing rates. You were asked by counsel for AT&T whether 14 Q. or not that if U S WEST reduced its access price that 15

16 other things being equal interexchange carriers could 17 reduce their toll rates. Do you recall that, that 18 question and answer?

19 A. Yes, I do.

20 Q. Is there anything that you know of that 21 prevents the interexchange carriers from reducing their 22 toll prices even if U S WEST doesn't reduce its access 23 prices?

A. Well, no. I believe they're free to reducetheir toll price at any time they would choose to.

Q. Are you aware of any published information
 on the extent to which AT&T specifically has recently
 passed through access reductions in terms of toll rate
 reductions?

5 A. Well, I am aware of some information that 6 suggests that they may not have passed some of those 7 reductions along.

Q. You were also asked questions by counsel for
AT&T concerning the possible deferral of the
restructuring in this case based on alleged concerns
about re-engineering and reconfiguring of networks. Do
you recall those questions and answers?
A. I'm sorry. Concerns, could you repeat that?

Q. I'm sorry. Do you recall questions and answers to counsel for AT&T about the possibility of deferring action on the restructure that you're proposing in this case based on the possible need of interexchange carriers to incur capital costs to reconfigure their networks?

20 A. Yes.

Q. Are you aware of any responses to data
requests in this case by interexchange carriers
responding to U S WEST on whether or not any such
reconfiguration had been done?
A. Yes. We received responses from, I believe,

1 four of the parties, interexchange carriers in the case
2 to that question, indicating that they will collect -3 well, collectively each of the responses was a little
4 bit different but collectively I would say each of the
5 four responding carriers that they have engaged in
6 reconfiguration of their networks and in some cases
7 that it's an ongoing process for them that they
8 continue to reconfigure their networks.

9 Q. And do you recall whether or not the 10 question that U S WEST asked was whether or not these 11 carriers had reconfigured their networks in response to 12 the restructure at the interstate level of local 13 transport charges effective January 1, 1994?

14 A. Yes. I believe that's the way the question15 was asked.

Q. You were asked some questions by the counsel for the Commission staff about your concern about the cost and time to reprogram the interexchange access billing system. Do you have any experience along these lines from your work with the company on projects of that type?

A. I haven't had any experience in actuallyreprogramming the billing system, no.

Q. Well, I meant have you observed occasionswhen the billing system has had to be reprogrammed as

1 part of your tenure with the company? 2 Α. I am acquainted with several of the instances in which we have had to have the billing 3 4 system reprogrammed and have seen some of the descriptions of the costs involved in some of those 5 б efforts. 7 Ο. Do you know whether or not the process of maintaining and updating that billing system is a 8 continuous or a discontinuous process? 9 10 Α. Well, it's continuous in that in terms of maintenance and then from time to time there are 11 updates that need to be performed. 12 13 Ο. Do you know whether or not there is a lead time involved in creating a major change to the billing 14 system? 15 Yes. There's definitely a lead time 16 Α. 17 involved. It has to be planned into the work process usually sometime in advance, especially if it's a major 18 19 change such as we're talking about here. 20 Do you know whether or not there are at any Ο. 21 given time projects for modifications to the billing 22 system that are in a queue, if you will? Yes. The projects do have to be prioritized 23 Α. and put in order, put in queue. 24 25 Q. Do you have any recollection of the amount

1 of lead time that you have seen for any prior major 2 changes to the billing system, just in a rough 3 approximation? Well, they can vary considerably, but I 4 Α. would say it's not unusual to need a year's lead time 5 6 to a make change such as this. 7 Ο. You were also asked questions about the 8 possibility of using self-reporting as an alternative to a change to the company's mechanized billing system. 9 10 Can you give the Commissioners some idea of what a 11 carrier's bill looks like physically? We're talking a 12 major carrier like AT&T? Have you ever seen one? Well, I have. Tend to be boxes full of 13 Α. paper each month. There's quite a bit of detail 14 contained in those bills. 15 And to do the kind of manual restatement 16 ο. 17 that you were asked about, would the service reps have to go through those boxes page by page searching for 18 19 particular information?

A. Well, I would hope that they have an electronic means of doing that, but conceptually that's the -- that's the magnitude of the information that would be involved because I am assuming that this kind of adjustment would ultimately have to be made for each wire center that we're concerned with, because the

1 billing is done on a wire center level.

2 Do you know how many interchange carriers Q. 3 U S WEST serves in Washington, just roughly? As I recall we had something on the order of 4 Α. 5 100 ACNA codes for carriers operating in the state of 6 Washington. Now, that doesn't necessarily mean 100 7 different carriers because many carriers have more than 8 one code but that would give an order of magnitude. 9 JUDGE ANDERL: What was the code that you 10 said? 11 THE WITNESS: A C N A. 12 JUDGE ANDERL: Thank you. 13 Ο. You were asked by counsel for AT&T about and to accept subject to check that U S WEST had recently 14 filed for a \$9 million toll rate reduction. Do you 15 16 recall that question? 17 Α. Yes, I do. 18 Q. Have you since learned anything about that 19 filing? 20 Α. Yes. What I've learned about that is that 21 we performed that filing for a promotional reduction in 22 the toll rates in response to the highly competitive 23 situation that has developed here in the state of 24 Washington for intraLATA toll service, and I can 25 amplify a little bit more what I said this morning

1 about that, that a decision to reduce prices like that 2 is certainly done in light of what the bottom line 3 impact would be for the company, and I do believe that 4 this is a situation in which the company has made the 5 judgment that we need to reduce the prices in order to 6 retain the business, and that if we don't reduce the 7 prices we stand to lose even more, perhaps even more, 8 revenues through lost business.

9 Q. Do you know whether or not this filing was a10 permanent or a temporary filing?

11 A. No, I'm not sure of that.

Q. Counsel for AT&T asked you with regard to your analysis of contribution for transport whether if you had done that analysis on the basis of average service incremental cost as opposed to what you did, whether the result of the analysis would have changed. Do you recall that question and I believe you said it would?

19 A. Yes.

20 Q. In your view would that be an appropriate 21 analysis?

A. No. I don't believe it would be anappropriate analysis.

Q. Would that be for the reasons you previouslystated about the respective role of ASIC and ASDRC in

1 judging contribution levels? 2 Α. Yes, it would, and also because of what I've 3 explained about the need to cover the shared residual 4 costs. 5 You were asked with regard to your pricing Q. 6 decisions whether in some cases you consider how a cost 7 is incurred, and I believe you said you did. Do you 8 recall that? That was also by counsel for AT&T? Α. 9 Yes. 10 Ο. In what situations would you apply additional factors? 11 12 Α. In almost every situation I would apply 13 additional factors. The cost information is just one of the pieces of input. 14 You were asked by counsel for AT&T whether 15 Q. 16 sometimes the ASDRC cost is approximately three times 17 the average service incremental cost, and I believe you 18 said sometimes it was. Do you recall that? 19 Α. Yes. 20 Does that mean that these are somehow Ο. 21 optional or not real costs in the ASDRC? 22 Α. Not at all. They are very real costs that 23 need to be recovered. 24 Counsel for AT&T asked you whether in all Ο. 25 situations in your analyses of switched local

1 transport, all the different configurations you've 2 shown a carrier would pay both the local switching and 3 the residual interconnection charge. Do you recall that? 4 5 Α. Yes. 6 ο. And is it the company's intention in the 7 rate case to seek a reduction in the residual interconnection charge? 8 Yes. It definitely is. We feel that, as I 9 Α. 10 have said before, we feel that the switched access prices are too high overall and it is that residually 11 priced interconnection charge that we would target for 12 13 reductions and had done so in the rate case. You were asking questions about DS1, DS3 and 14 ο. 15 voice grade, and I just wondered perhaps for the 16 clarity of the record you could state specifically what 17 each of those terms means in the context of your 18 testimony. 19 Α. This will be a challenge. 20 I know you're not an engineer but if you Ο. could just give your best understanding. 21 22 Α. Sure. These are the three different service 23 or service levels that are generally provided for in 24 telecommunications for a direct circuit or a dedicated 25 circuit. And voice grade being the smallest of them,

1 and generally used for -- as the name implies for voice 2 transmission, analog type of service. 3 Then DS1 is times called T1, and generally 4 speaking it can carry 24 of the voice grade circuits. 5 It's a larger pipe is another way to put it, and it's 6 also referred to as a high capacity service. 7 And then the largest is the DS3 service 8 which is equivalent to 28 DS1 services, and if you 9 multiply that through to find out how many voice grade 10 circuits you can carry on a DS1 then that number turns out to be 672. 11 12 Q. Directing your attention to Exhibit C-71? 13 Α. I don't seem to have a copy here. In your view, is that an appropriate 14 Q. comparison to make? 15 16 Α. No, it's not. 17 ο. And why is that? There is several things about this that it 18 Α. 19 just doesn't tell me anything that's particularly 20 useful. First of all, it's an analysis based on ASIC 21 and then purports to calculate contribution from that 22 level, and as we pointed out on the record before, that last column that's labeled Contribution is really more 23 24 appropriately labeled Contribution plus a contribution 25 to common costs -- plus shared residual costs and

1 because that's a combined thing there, you don't really 2 know how much is going to common costs versus how much 3 is going to shared residual costs, so that's one 4 difficulty with this. And also by putting as an 5 absolute dollar amount on a per circuit basis this is 6 not particularly helpful in my mind also. I would 7 expect to have a lower dollar amount of contribution 8 per circuit for a DS3 than for a DS1, because a DS3 is 9 a larger service. It has a higher price overall, but 10 it does have a lower price per circuit than a DS1, and 11 so the dollar contribution per circuit you would expect 12 to be lower. I mean, that's just a logical conclusion. 13 So as I have said before, to me a more useful analysis 14 is an analysis of the relative contribution between these services. 15

Q. You were also asked a question by counsel for IAC about whether the proposed intrastate rate for local transport -- strike that -- local switching was three times the interstate rate. Do you remember that? MR. MUTSCHELKNAUS: Your Honor, I object. I think it's a clarification. Counsel used the term local switching and the question went to the tandem switching. Two different items.

24 JUDGE ANDERL: Okay.

25 MR. OWENS: I will withdraw the question.

1 Q. You were asked a question whether or not you had proposed a rate in this case that was three times 2 3 the interstate rate for tandem switching. Do you 4 recall that? 5 Α. I recall the question. I'm not quite sure б if it was actually three times but, yes, a significantly higher rate. 7 You had previously testified that the 8 Q. company has filed to change the interstate tandem 9 10 switching rate; is that correct? 11 Α. That is correct. 12 Ο. And in what direction would that change be if it's approved by the Federal Communications 13 Commission? 14 15 Α. We have filed for an increase in the tandem 16 switching rate. 17 ο. And during the course of the pre-hearing phase of this case, have you modified the proposed 18 19 tandem switching charges at all from the original 20 filing in the fall of 1994? Yes. I have modified that considerably. 21 Α. 22 The first tandem switching price that I filed in November was .73 cents, and over the months, as we have 23 24 gotten new information that has gone down to .33 cents. 25 Q. You were asked a question by counsel for

1	Michigan, and I just want to make sure that the record
2	is clear. I believe the question started out asking
3	you whether there were circumstances in which you
4	believe that average service incremental cost would be
5	the appropriate price floor and then it appeared that
6	the question was changed to whether there were
7	circumstances when you would believe that ASDRC would
8	not be the appropriate price floor. Can you clarify
9	whether you understood that question to refer to
10	ASDRC not being the appropriate price floor?
11	A. No, I did not understand that.
12	Q. You were asked a question by Commissioner
13	Gillis about the situation in Rochester, New York. Do
14	you recall those questions?
15	A. Yes.
16	Q. Are you aware of whether or not Rochester,
17	New York enjoys local measured service?
18	A. I am not aware.
19	Q. Do you know whether or not the residential
20	rates in that area of Rochester are lower than U S WEST
21	residential rates?
22	A. No, I don't know.
23	Q. Or higher?
24	A. I don't know.
25	MR. OWENS: That's all. Thank you.

1 JUDGE ANDERL: Thank you. Recross for this 2 witness, Mr. Trautman. 3 4 **RECROSS-EXAMINATION** BY MR. TRAUTMAN: 5 б Q. In response to one of Commissioner Gillis' 7 questions Mr. Owens just referred to, you stated that entry of Time Warner in Rochester was an explanatory 8 factor behind increasing competition. Is that correct? 9 10 Α. Yes. Did Rochester telephone set up a subsidiary 11 Q. 12 for retail services and a separate subsidiary for 13 wholesale unbundled monopoly services? I believe that is part of the situation in 14 Α. 15 Rochester. 16 Q. Could those events also partially explain 17 competition in Rochester? 18 Α. Yes. I'm sure there are many factors that 19 help to explain why Rochester is one of the first places why we're seeing this competition emerge. I 20 21 think the point is that it's probably -- it may be the 22 first but I expect there will be more and that you may 23 not see exactly the same factors in all of those 24 situations but I do fully expect there to be more. 25 Q. In response to a question from Mr. Owens on

1 redirect, you spoke about the cost and the magnitude 2 and the complexity of the interexchange access billing 3 system; is that correct? That's correct. 4 Α. 5 Will the proposed U S WEST billing system Q. 6 for local interconnection, assuming it's approved, be 7 equally or more costly and complicated to administer or to program changes based on your experience? 8 Α. I don't have any knowledge of the new 9 10 billing system that is being proposed for local interconnection. 11 12 Ο. So you have no opinion one way or the other. Do you have any reason to believe it would be less, 13 less costly and complicated to administer? 14 15 Α. I don't know. Has U S WEST done any studies on this, on 16 ο. 17 the local interconnection system, the billing system? I don't know. I think Mr. Owens would be 18 Α. 19 the person to address those questions to. 20 MR. TRAUTMAN: No further questions. JUDGE ANDERL: Thank you. Go to AT&T next, 21 22 Ms. Proctor, recross. 23 MS. PROCTOR: Yes, thank you. 24 25 RECROSS-EXAMINATION

1 BY MS. PROCTOR:

2 Dr. Wilcox, are you aware that in Rochester Q. 3 resale of basic local exchange service is permitted? Yes, I am aware of that. 4 Α. 5 And you're aware that that's in fact how Q. 6 AT&T is providing service in Rochester under that 7 trial? Α. 8 Yes. 9 Would that also be a factor that might Ο. 10 contribute to the emergence of a more competitive 11 situation there? 12 Α. It is very possible. In your discussion with Commissioner Gillis 13 ο. 14 on shared costs, I just wanted to perhaps clarify a 15 little bit your understanding. Switched access is a 16 service, is it not? 17 Α. Yes. It's not a group of services. It is a 18 Q. 19 service? 20 Α. By itself I would call it a service. And would you call DS1 private line a 21 ο. 22 service? Yes, I would. 23 Α. 24 ο. And I take it also by extension DS3 that's 25 another service?

1 Α. Yes. 2 Q. Would you view switched and dedicated 3 service, access services, as a family of services? One could. If you're asking if that's the 4 Α. group of services that shares these costs I really 5 6 cannot answer that. I think you would have to address 7 that to Mr. Farrow. Thank you. That's exactly what I was trying 8 Q. 9 to understand, what the family or group of services 10 that we were sharing residual costs was, but you're saying that I should direct that to Mr. Farrow? 11 12 Α. Yes. 13 Ο. In your discussion about revenue neutrality I was interested in how revenue neutrality would work 14 with respect to local interconnection. Local 15 interconnection is a new service, is it not? 16 17 Α. It is. 18 Q. Then how do you establish rates that are 19 revenue neutral? Set them at zero? 20 Α. I don't know how you establish revenue 21 neutral rates for local interconnection, and economy 22 comments about revenue neutrality were limited strictly 23 to switched access that's sold to interexchange 24 carriers. 25 Q. Now, you just mentioned that tandem

1 switching rate at the interstate, and the interstate 2 jurisdiction you had filed to increase. In fact the 3 costs for tandem switching have, according to the most 4 recent study, been reduced from the previous study, have they not? 5 6 Α. I believe that's true. Nevertheless, both 7 the current and the proposed interstate tandem switching rate is below cost. 8 9 Which cost? Q. 10 Α. ADSRC. And I assume that it's going to be even more 11 Q. 12 above the ASIC costs? 13 Α. I'm sorry? I believe I understood your testimony this 14 Q. 15 morning that in response to questions from 16 Mr. Mutschelknaus that the interstate price currently 17 is above the ASIC? 18 Α. That's correct. 19 Q. So by increasing it you would make it even 20 more above the ASIC? 21 Α. That's correct. 22 Q. Concerning the calculation of contribution, 23 would it be in your view appropriate, and I assume, 24 although we haven't seen your work papers -- let me 25 back up. Would it be appropriate if I took the DS1

1 variable rate of \$11 for the first mileage band and I 2 compared that to the cost which is about the price of a 3 pay phone call. If I compared those and developed a 4 percentage, is that in your view a fair way to 5 calculate how much contribution is being generated by 6 that element?

7 A. I don't think it tells you much if you look 8 at just the variable rate element alone because when we 9 sell the service we charge both the variable and the 10 fixed rate. There's no circumstance under which 11 customer would pay only the variable rate, and so in 12 order to get the contribution generated by the service 13 you would have to include both rates and both the costs 14 associated with both rates.

Q. Okay, but if I did that, if I looked at both elements and I assume all mileage bands of those elements and compared the price to the cost, in your view would that be a fair representation of the contribution?

20 A. That is the way that you calculate the 21 contribution, yes.

Q. And is that what you did in preparing your
exhibit where you were representing the contribution?
A. I took the additional step of converting
that into a percentage number, and that's what I mean

1 when I say relative contribution is to compute it as a 2 percentage of the total revenues generated. 3 I'm sorry. We've clearly established I Q. don't do numbers, so I'm afraid I'm not understanding 4 5 that. It's a percentage of revenues so you're not just 6 comparing the price to the cost? You're comparing it 7 to something else as well? 8 Α. I am comparing the price to the cost and when I said revenues I really mean the revenues 9 10 generated by the price, so just --11 So price and revenue are the same thing? Q. 12 Α. Price is for one element. Revenue is when 13 you multiply it out times all the elements to get the total dollars generated. But would you have to also include demand in Q. that? Α. Yes. So that's a very different computation then 18 Q. 19 because I haven't included demand in my question to you? 21 Α. Oh, okay. Then I misunderstood the method 22 that I thought you were describing because you talked 23 about across all mileage bands, and if -- there are a 24 number of different ways to base these calculations so 25 I'm not quite sure which way it is that you're

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1 suggesting, but the general principle here is that you 2 take the price and you subtract from it the cost and 3 the difference is the contribution and then what I'm 4 saying is I take the additional step of dividing that 5 contribution number by the price to turn it into a 6 percentage. So, for example, if there's a product that 7 has a price of a dollar and a cost of 40 cents then the 8 contribution is 60 cents. Then I divide that by the 9 dollar to say it's 60 percent contribution. 10 Ο. The contribution that Mr. Butler used yesterday, did you have a chance to look at how they 11 12 calculated contribution? No, I don't believe I did. 13 Α. If they calculated it the same way that you 14 Ο. just described then you would regard that as a fair 15 representation of contribution? 16 17 Α. I have not seen the exhibits you're 18 referring to. 19 JUDGE ANDERL: Are you referring to Exhibit 20 C-42? MS. PROCTOR: Yes. 21 22 Q. You were also asked certain questions about 23 the responses of the interexchange carriers to questions concerning reconfiguration of the network, 24 25 and that request was posed in terms of the interstate

1 tariffs, was it not?

2 A. Yes, it was.

3 Q. And since you viewed and testified that you 4 see the long distance market as being highly 5 competitive, I take it it wouldn't surprise you that 6 carriers would be constantly changing their network and 7 reevaluating their network in an effort to become more 8 efficient? 9 Α. No. That would not surprise me and that is 10 very consistent with what I've learned by working with carriers over the years. 11 12 Ο. And that even though the interstate tariff 13 has been in place for 18 months I believe it fair to say that all the carriers indicated that they were 14 15 still working on reconfiguring their networks. Isn't 16 that true? 17 Α. I'm not sure that they all said that, but 18 some of them certainly did. 19 Q. AT&T said that, did they not? 20 Α. I don't recall. 21 Thank you very much. Q. 22 JUDGE ANDERL: Thank you, Ms. Proctor. 23 Mr. Mutschelknaus. 24 MR. MUTSCHELKNAUS: Yes, thank you. 25

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2 RECROSS-EXAMINATION BY MR. MUTSCHELKNAUS: 3 Dr. Wilcox, on redirect Mr. Owens asked you 4 Ο. whether U S WEST had lost any competitive bids for 5 б providing local transport service. Do you recall that? 7 Α. Yes, I do. Have you lost any bids for providing tandem 8 Q. switch transport? 9 10 Α. I don't believe we've bid on any project for tandem switch transport. 11 12 You also stated in response to questioning Q. from Mr. Owens that DS1 -- the DS1 and DS3 rates that 13 are at issue in this proceeding are existing rates. 14 Can you today purchase -- let me rephrase that. Are 15 16 those prices available in the switched access tariff 17 today in Washington? No. They're not available in the switched 18 Α. 19 access tariff today. They are available as private line services today. 20 21 So this is an entirely new application of Ο. 22 those rates? It's a new application of existing rates. 23 Α. 24 ο. There was also a discussion of the U S WEST 25 proposal to increase the tandem switching rate at the

A. Yes.
Q. Do you recall that you admitted earlier that
the proposed rate in Washington is three times the
existing federal level?

6 A. Yes.

1 federal level.

7 Ο. And isn't it true that the proposed rate in 8 Washington is also over three times as high as your proposed increase rate at the federal level? 9 10 Α. I'm not sure. I would have to take a look 11 at the number and do the calculations. 12 Q. Do you have that number? 13 Α. I may have. Would you put it in the record, please. 14 Q. 15 JUDGE ANDERL: Mr. Mutschelknaus, would it 16 be easier if you just ask the witness to accept that 17 subject to check. MR. MUTSCHELKNAUS: I don't have that exact 18 19 number here. I think I know what it is but I hate to 20 swear to it. THE WITNESS: Well, I can supply it at a 21 22 later time. MR. MUTSCHELKNAUS: I have the exact page 23 24 back in my room. I can supplement the record later. 25 JUDGE ANDERL: Maybe that's better.

1 MR. MUTSCHELKNAUS: If counsel would 2 stipulate to accepting those pages as an exhibit I will 3 put them in later. 4 MR. OWENS: They're tariff filings, we 5 certainly accept that. 6 JUDGE ANDERL: Okay. 7 MR. MUTSCHELKNAUS: Thank you. No further 8 questions. Thank you. 9 JUDGE ANDERL: Mr. Rindler. Since the 10 microphone is closer to you we'll just work down the 11 table. 12 RECROSS-EXAMINATION 13 14 BY MR. RINDLER: 15 During the tenure, Dr. Wilcox, has the Q. 16 Commission required any change in U S WEST billing 17 system? I'm sorry. Which Commission are you 18 Α. 19 speaking of? 20 Q. This Commission. I don't believe I'm aware of any. I don't 21 Α. 22 know if they have or have not. 23 Q. If they have do you believe that their 24 requirement to change it would be put in queue? 25 A. It would have to be weighed against the

1 other various billing system changes that were in queue 2 and something would have to be worked out with the 3 Commission as far as timing goes. When you decide to reduce prices on 4 Ο. intraLATA toll do you expect to obtain the revenues 5 6 elsewhere? 7 Α. Well, it depends upon the circumstances under which the toll prices are reduced. 8 9 What about the request that you have in now Ο. 10 to reduce them? The current request? 11 Α. 12 Q. Yes. 13 Α. No. I believe the company's expectation in 14 that case is to save lost market share or shave 15 revenues through stemming losses, competitive losses. So you do make reductions without 16 Q. 17 expectations of having the revenues replaced somewhere 18 else? 19 Α. Well, it depends on how you're using that term replace. I would say that the reduction, the toll 20 21 reduction that you have referred to was made with an 22 expectation of a benefit to the company. 23 Benefit being to stem some losses? Q. 24 Α. That's correct. 25 Q. In the case of switched access service do I

1 understand that in the proposal you've made you have 2 restructured the transport rates and you have moved the 3 requirement for certain revenues over to a CCL? No. We have not moved the revenues to a 4 Α. 5 CCL. We have moved it to an interconnection charge. б Q. So you're replacing the revenues by creating 7 a new charge? Yes, and as I've explained we view that as a 8 Α. 9 temporary measure, an interim measure. 10 Ο. Thank you. 11 MR. RINDLER: I have no further questions. 12 JUDGE ANDERL: Ms. Lehtonen, any questions 13 for this witness? 14 MS. LEHTONEN: No questions. 15 JUDGE ANDERL: Ms. Weiske, did I ask you 16 yet? MS. WEISKE: No, you didn't. 17 18 RECROSS-EXAMINATION 19 BY MS. WEISKE: 20 Q. Would you look at Exhibit 7, page 3, please 21 for me -- Exhibit 57? 22 Α. I'm sorry, which exhibit? 23 Q. 57, page 3. 24 JUDGE ANDERL: That's the switched access 25 price worksheet.

1 THE WITNESS: Thank you. 2 Α. Okay. 3 Q. Isn't it true that interexchange carriers 4 are already paying for a total -- already paying the 5 rates on the line that says total direct trunked 6 transport? 7 MR. OWENS: I'm going to object. This is 8 beyond the scope of redirect and I don't recall that it 9 was the subject of cross by others. 10 JUDGE ANDERL: Ms. Weiske? MS. WEISKE: She said that they already were 11 12 paying these rates and she said that in response to a 13 question on cross. JUDGE ANDERL: I will allow it. 14 15 Aren't exchange carriers already paying Q. 16 those rates for direct trunk transport? I'm sorry. There are no rates on the line 17 Α. 18 that you're researching so I'm confused. 19 Q. The line that says total direct trunk 20 transport? 21 JUDGE ANDERL: What page? 22 Q. Page 3, the revenues generated from that line refer to what kind of rates? 23 24 Α. Those refer -- those revenues are derived 25 from the rates on the lines above on page 2 and the top

of page 3, and those rates are existing private line
 rates in the state of Washington now. That doesn't
 mean those revenues are existing revenues.

Q. So the rates that are being paid for those
services aren't generating revenues that U S WEST is
already receiving?

7 A. Yes, they certainly are but they are not
8 represented on this worksheet. This worksheet is only
9 for switched access services. It does not represent
10 private line revenues.

11 Q. So the figure across on page 3 for total 12 direct trunk transport. That's not a figure of total 13 revenues received from particular services?

A. It is a total of revenues that we will
receive from switched access direct trunk transport
only. It does not include private line revenues.

17 Q. Are these currently the special access18 rates?

19 A. The rates are the current private line or20 special access if that term is more meaningful to you,21 yes.

Q. I thought you said earlier in response to
Commissioner Gillis that when nonessential services
were priced too high the costs were too high to
competitive entrants. I misheard you, didn't I?

1 Α. I'm not sure what you're referring to. 2 Q. So your position is that it's the essential 3 services that you would be concerned with in terms of looking at a relationship of cost to price? 4 5 (No response.) I don't understand the Α. 6 question. 7 If you're looking at an essential service Ο. and it's a service that cannot be purchased elsewhere 8 would you agree that that would be essential as you 9 10 would use the term? Α. Okay. Q. Is that a yes? Α. Yes. And if you want to price that service I Q. thought you said earlier that you would look at inputs other than cost to make that price determination? Α. Yes. My position is that for any service, addition to cost that one would want to consider in 20 setting the price. And you would utilize those factors whether Q. the service was from your perspective essential or 23 nonessential? 24 Α. Well, the specific factors that you would 25 look at might vary, might differ, depending, and the

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17 18 essential or nonessential, there are factors in 19

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1 weight that you would give them would vary, but I would 2 -- what I'm trying to say or what I was trying to say 3 was that even for an essential service cost isn't the 4 only thing that one would need to take into 5 consideration in setting a price. 6 Q. And so from your perspective in terms of 7 pricing you would account for those other factors 8 whether you would looking at a service from your perspective whether it was essential or nonessential? 9 10 Α. I would take other factors into consideration, yes. 11 12 Ο. In both of those instances? 13 Α. In both instances. JUDGE ANDERL: Was that it? 14 15 MS. WEISKE: Yes. JUDGE ANDERL: Mr. Trotter. 16 17 Anyone else? Mr. Owens, what is this? 18 Trying to limit this to two rounds. 19 MR. OWENS: One question I neglected to ask 20 related to a question by Commissioner Gillis. JUDGE ANDERL: What's the question? 21 22 MR. OWENS: Just I believe Commissioner 23 Gillis asked whether in an essential service if it was 24 priced at a relatively high level that would 25 disadvantage a competitive entrant, and I wondered

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1 would any such advantage be nullified by imputation if 2 the price of the essential service was imputed to U S 3 WEST? 4 JUDGE ANDERL: I will allow that question. 5 THE WITNESS: Yes. That certainly is what 6 the imputation process is designed for is to take care 7 of those kinds of considerations, and I am sure that 8 Mr. Purkey can address that in greater detail. 9 MR. OWENS: Thank you. Thanks for your 10 indulgence, Your Honor. JUDGE ANDERL: Anything further for this 11 12 witness? MS. PROCTOR: Yes. 13 JUDGE ANDERL: Is it directly relevant to 14 15 that question? 16 MS. PROCTOR: Yes. Just one question. 17 18 RECROSS-EXAMINATION 19 BY MS. PROCTOR: 20 ο. Dr. Wilcox, would you be surprised to hear 21 that Mr. Purkey used ASIC costs in his imputation 22 analysis? 23 Α. No, I'm not surprised. 24 ο. Would you agree with that? 25 Α. As I indicated before, there are different

1 circumstances under which one would use different cost 2 measures, and what I have been addressing in my 3 testimony is strictly the situation of the appropriate 4 price floor for switched access service, and that is the specific context that I'm testifying to. 5 6 Q. So your position is that for setting 7 switched access prices ASDRC is the appropriate -- the 8 one with the residual shared direction allocated fully distributed costs. 9 10 Α. Not fully distributed. Not fully distributed. 11 Q. 12 JUDGE ANDERL: Ms. Proctor, just get to the 13 question. ADSRC is the appropriate price floor for 14 Q. setting access prices. 15 16 Α. Yes. 17 Ο. But when Mr. Purkey imputes access into toll 18 it's appropriate to use a lower ASIC price floor? 19 JUDGE ANDERL: Let's let Mr. Purkey answer that question. I just really feel that there's been 20 ample opportunity to go over this with this witness. I 21 22 think we're starting to plow ground that's been turned 23 many times and I think that's a better question for 24 Mr. Purkey. Thank you, Dr. Wilcox, for your testimony. 25 You may step down. Let us take an afternoon recess. I

1 need counsel to stay so we can stay about scheduling. 2 I'm going to need time estimates for the next five or 3 six witnesses. 4 (Recess.) 5 JUDGE ANDERL: Let's be on the record after 6 our afternoon recess. While we were off the record 7 Mr. Farrow took the stand. We previously identified 8 his direct testimony and exhibits on the record. His 9 rebuttal testimony is -- I think we also identified on 10 the record, I will just clarify his rebuttal testimony 11 is Exhibit T-43 and the two exhibits included with that 12 BEF 12 and BEF-2 are both confidential. They are 13 designated C-44 and C-45. Mr. Farrow, did I swear you 14 in yesterday? 15 THE WITNESS: I don't think so. 16 JUDGE ANDERL: Still, Mr. Owens? 17 MR. OWENS: Yes, Your Honor. 18 Whereupon, 19 BRIAN E. FARROW, 20 having been first duly sworn, was called as a witness 21 herein and was examined and testified as follows: 22 DIRECT EXAMINATION 23 24 BY MR. OWENS: 25 Q. Good afternoon, Mr. Farrow.

1 Α. Hi. 2 Q. Please state your full name and address for 3 the record? Brian E. Farrow spelled F A R R O W. My 4 Α. address is 1314 Douglas-on-the-Mall, Omaha, Nebraska. 5 б Q. Are you the same Brian E. Farrow who has caused to be prefiled in this case Exhibits that have 7 8 been premarked Exhibit T-23 identified as your direct testimony, Exhibits 24, 25, 26, 27, 28, C-29 and 9 10 rebuttal testimony identified as Exhibit T-43 and 11 Exhibit C-44 and Exhibit 45? 12 JUDGE ANDERL: C. xx MR. OWENS: C-45. 13 14 Α. Yes. Were all of these exhibits prepared by you 15 Q. 16 or under your direction and supervision? 17 Α. Yes, they were. Do you have any additions or correction to 18 Q. 19 be made to any of these exhibits? 20 Α. Just a few. 21 Will you please state what they are? Ο. 22 Α. I will first direct you to my direct 23 testimony which is Exhibit 23, and turn to page 11, and line 16 through 19, I would like -- starting with line 24 25 16 I would like to place a period after "services" and

1 delete line 17, 18, 19, should then just read, "I have 2 provided ADSRC for all services." 3 I will now direct you to Exhibit T-43, page 4 9, and the footnote at the bottom footnote 14 should 5 read, "Testimony of Mr. Buorgo page 5. On page 10, 6 line 23 after the word costs add study and delete the 7 word "call" and add "all." It should read, "In the 8 long run cost study all inputs for providing service 9 are variable." 10 JUDGE ANDERL: Mr. Farrow, I'm sorry, read that again "in the long run cost study all inputs." 11 12 THE WITNESS: Yes. "In the long run cost 13 study all inputs for providing service are variable." JUDGE ANDERL: Thank you. 14 And on line 15 on page 12, delete "in this 15 Α. docket" and say "with my original testimony." So it 16 should read, "all studies filed with my original 17 18 testimony are statewide average studies." 19 At the bottom of that page footnote 20 20 delete line 36. That should be line 14. And finally 21 on page 15, line 14, line 13 and 14, I should say, delete 22 "service-specific variable costs" and add "volume-sensitive costs." 23 24 JUDGE ANDERL: Mr. Farrow, delete 25 "service-specific variable costs"?

1 THE WITNESS: Yes. 2 JUDGE ANDERL: And add? 3 THE WITNESS: "Volume-sensitive costs." 4 That's all the changes. 5 And as corrected are the exhibits that I've Q. 6 asked you about true and correct to the best of your 7 knowledge and belief? Α. Yes. 8 9 And if I were to ask you the questions ο. 10 printed on Exhibits T-23 and T-43 would your answers be 11 as set forth therein? 12 Α. Yes. MR. OWENS: I would offer Exhibits T-23, 24, 13 14 25, 26, 27, 28, C-29, T-43, C-44 and C-45 and Mr. 15 Farrow is available for cross-examination. 16 JUDGE ANDERL: Is there any objection to 17 those exhibits from any party? Hearing none those exhibits will be admitted 18 19 as identified. 20 (Admitted Exhibits T-23, 24 through 28, 21 C-29, T-43, C-44, C-45.) 22 JUDGE ANDERL: Mr. Smith, cross for Mr. 23 Farrow. 24 MR. SMITH: Yes. 25

1 CROSS-EXAMINATION 2 BY MR. SMITH: 3 Q. Good afternoon, Mr. Farrow. Hi, Mr. Smith. 4 Α. 5 Will you please turn to page 3 of your Q. 6 rebuttal testimony. Line 27 you say, "if the market 7 price is not above TS LRIC company should not offer the 8 product." Does the concept of TS LRIC as you have used it in that statement approximate the concept and 9 10 economic theory of marginal costs? 11 Α. No, it does not. 12 0. What is the difference? Marginal costs would be approximately 13 Α. equivalent to what we refer to as a volume-sensitive 14 15 costs. However, the marginal cost concept is based 16 upon adding one additional unit of service, and the 17 cost of that additional unit of service. Total service 18 long-run incremental costs are based upon the costs of 19 the total service including both volume-sensitive and 20 service-specific fixed costs. And in some cases the 21 group-related costs as well. 22 Q. In economic theory, in a competitive market is price equal to marginal cost? 23 24 Α. Is price equal to marginal cost? 25 Q. Yes. In economic theory in a competitive

1 market?

2 Α. In a competitive market, no. No. I would 3 say no. 4 Referring to your rebuttal Exhibit C-44, Q. BEF-1 in the rebuttal testimony. In that exhibit you 5 6 provide the summary of the company's residential local exchange service cost study; is that correct? 7 Α. That's correct. 8 9 And on June 5, 1995, Commission staff Ο. 10 propounded data request No. 126 asking for the complete study upon which the ASIC and ADSRC estimates for 11 12 residential service were based including a personal 13 computer ready version with any and all supporting 14 documentation. Is that correct? 15 I don't remember that, the question, no, I Α. don't. 16 17 Ο. Would you accept that subject to check? 18 Α. I will accept it. 19 Q. And you don't remember the request at all or 20 just the date? I don't remember the request. That request 21 Α. 22 probably was handled by my staff and it would normally go to the cost analyst who completed the study to 23 24 respond. 25 Q. So you would be unable to tell us the status

1 of the response to that request today. Is that 2 accurate? 3 Α. No, I do not know the status of the request. Would you accept subject to your check that 4 Ο. it has not been provided to staff yet? 5 6 Α. I will accept that. 7 And the 1995 cost study, is that the same Ο. study presented in the general rate case UT-950200? 8 9 Are you referring to the results shown here, Α. 10 are they the same results that are shown in the general 11 rate case? 12 Ο. Yes. There have been some changes since the 13 Α. original filing of the general rate case. 14 Q. 15 Were you here this afternoon when Dr. Wilcox testified? 16 17 Α. For part of the time, yes. 18 0. And Dr. Wilcox testified that she attempted 19 to address the Commission's order in the term loops 20 case that like services should be priced the same. 21 Were you here for that testimony? 22 Α. No, I was not. 23 Well, the term loops order also expressed a Ο. 24 notion that the cost studies should assume as a cost of 25 money the company's authorized rate of return, and

1 should also assume objective fill factors. Are you 2 familiar with that or will you accept that subject to 3 check? I am familiar with that. I also understand 4 Α. that that since U S WEST withdrew I guess filing that 5 б that order was vacated. 7 Ο. Is that your opinion as an engineer? About the order being vacated? 8 Α. 9 Yes, the status of that order. Ο. 10 Α. As an engineer? That's my opinion as a 11 human being. Q. 12 And did the Commission, to your knowledge, 13 vacate its order in the terminal loops case? I believe that was the case. 14 Α. 15 But the studies you sponsor in this Q. 16 proceeding do not assume the company's authorized rate 17 of return for cost of money; is that correct? That is correct. We do not assume the 18 Α. 19 authorized rate of return for cost of money mainly 20 because authorized rate of return and cost of money are 21 two different things. 22 Q. Right. And the cost of money you assume is higher than -- in these studies is higher than your 23 authorized rate of return; is that correct? 24 25 Α. And the authorized rate of return is what?

1 Q. 10.53?

2 A. Yes. The cost of money is higher than the 3 authorized rate of return.

Q. And increasing the cost of money assumption
will result in higher cost assumptions all other things
being equal; is that correct?

A. Typically, yes, but sometimes increasing the
authorized rate of return might decrease the cost of
money.

10 Q. Your studies assume average fill not 11 objective fill; is that correct?

12 A. No. They don't. They assume both. We 13 calculate both numbers. In some cases we use one level 14 of costs -- we use average fill in another level of 15 costs we use objective fill. Volume-sensitive costs 16 are calculated at objective fill. The shared costs are 17 usually calculated at average fill.

18 Q. And does using average fill instead of 19 objective fill result in higher cost estimates all 20 other things being equal?

21 A. Yes.

22 Q. At the bottom of page 4 and through page 6 23 of your rebuttal testimony, you talk about the recovery 24 of shared cost and on page 5 at line 14 you use the 25 term group TS LRIC. Do you see that?

1 Α. Could you give me those reference again, 2 please? 3 Q. I'm on page 5 of your rebuttal testimony, line 14 or 15? 4 5 Α. Yes. б Q. Now, you address Ms. McCanless's 7 recommendation of tandem switching priced closer to 8 ASIC at the bottom of page 4 and you discuss recovery of shared costs? 9 10 Α. Yes. When you talk about shared costs are you 11 Q. 12 referring to administrative expenses as well as spare 13 capacity? Yes. We include both spare capacity and 14 Α. administrative expenses and the shared costs and the 15 16 administrative expenses include such things as customer 17 accounting and systems billings associated with 18 customer accounting. 19 Q. And are those types of costs called group TS 20 LRIC in the quotation from Mr. Wood on line 14 of page 21 5 of your testimony? 22 Α. Are you asking me if Mr. Wood --23 I'm asking for your understanding of that Q. 24 term group TS LRIC from your quotation of Mr. Wood? 25 Α. To quotation on line 6 or to --

1 Q. Line 14.

A. That was not a quotation of Mr. Wood on line
14. That was a quotation of building blocks theory and
application MCI Telecommunications Corporation.

Q. Okay, that's correct. With that correction?
A. Okay. Are you saying does this group TS
7 LRIC include that?

8 Q. Yes.

9 A. I don't know if as it was referred to in 10 this document, does it include that, but I will assume 11 that it includes any shared costs of the corporation, 12 if the corporation is identified.

13 Ο. So if I understand your testimony you are saying that there are tandem switching costs that are 14 shared between interexchange carriers such as AT&T and 15 other customers -- other services; is that correct? 16 17 Α. There are costs associated with tandem switching that are shared with other services other 18 19 than switched access services. Those costs are the costs of spare capacity associated with the tandem 20 21 switch.

Q. In the example you give in your testimony of
one of the other services that share tandem switching
costs is local exchange service; is that correct?
A. That's correct.

Q. Could you define what services are included
 within local exchange services in your testimony there?
 A. When I refer to basic exchange services I'm
 referring to 1FR and 1FB services.

5 Q. And you indicate at page 2 in the footnote 6 of your rebuttal testimony that TS LRIC is the 7 equivalent of ASIC in your cost studies. Is that 8 accurate?

9 A. No, that is not accurate. It says, "service
10 TS LRIC is equivalent to the average service
11 incremental cost, ASIC described in my
12 direct testimony."

13 Ο. Going back to the subject of tandem switching costs and your testimony on page 5 the line 3 14 that basic exchange services use only tandem switches 15 16 for 8.37 percent of local calls. Do you know what 17 portion of tandem shared costs are recovered by local exchange services according to your cost studies? 18 19 Α. 8.37 percent. What we do is we calculate the costs of tandem switching and that cost is 20 represented by a trunk to trunk cost. It's called 21 22 trunk to trunk. You will see it in our studies that 23 way, and this is more or less a probability that a 24 tandem switch will use -- excuse me -- that local 25 service will use tandem switching. Therefore, we

1 multiply this probability times the unit cost

2 associated with the spare capacity -- associated with 3 tandem switching to come up with how much we assign to 4 local services.

5 Q. Would it be possible to look at the services 6 which share the tandem switching costs and add up those 7 shared costs and would they equal the total of tandem 8 switching costs which are not already covered through 9 service-specific costs?

10 A. Yes. It should be possible to do that, 11 although we don't do that in particular. What we do is 12 when we calculate the cost of tandem we take a look at 13 the total usage of a tandem not by service but all of 14 the usage that goes through a tandem.

Q. Does the company have a matrix which shows which services use which functional categories of investment so that someone else could look at that matrix and your cost studies and independently verify whether cross subsidy is occurring in regard to this shared residual services?

A. No. We have not created such a matrix.
There are -- U S WEST has many products and services
and there are of course many hundreds of network
functions and a lot of these overlap considerably and
so we have not provided such a display.

In order to determine whether the allocation 1 Q. 2 of shared residual cost avoids cross subsidy you would 3 have to know which services shared functional categories of investment, would you not? 4 5 No. You would not have to do that. We Α. 6 calculate the shared residual costs at a product level 7 for our product managers and we ask them to manage 8 their products around that level. We expect them to 9 price their services in such a way that they recover 10 those shared costs. How can I tell what a product group is? 11 Q. 12 Α. I could take you through an example if you 13 would like. Well, if you do not have a matrix or some 14 ο. other similar resource, how would I independently 15 verify what the product group using the investment 16 17 component is? The way you would verify it would be to look 18 Α. 19 at the product and verify that the product uses the network functionalities that are required to produce 20 that particular product. 21 22 Q. So I would have to go through all of your 23 products individually to see what network function it 24 uses to determine my family of products for purposes of 25 shared residual cost allocation?

A. Yes, that's what would have to be done.
 Q. And would that be easy for a third party
 outside of the company to do?

A. It wouldn't even be easy for us to do. You have to remember that a lot of the costs calculated for these studies are done in investment models, and the reason we use investment models is because there is a lot of sharing of investment associated with U S WEST products and services and these investment models sometimes run off main frame computers. They're very large models in some cases.

12 Q. If a service is priced at ASIC, is it 13 subsidized?

Question of subsidy should be -- question of 14 Α. subsidy at the service level I should say -- should be 15 16 handled by considering both the total revenues 17 associated with the service and the total service 18 incremental cost associated with the service so at the 19 service level total revenues should equal or exceed 20 total service incremental cost. At the group level the 21 total revenues of service group should exceed the total 22 group cost as well as the direct costs of that service. So would a service priced at ASIC be 23 Q. subsidized at the group level? 24

25 A. No.

1 Q. Could you explain that for me. ASIC --2 Α. This is assumed that to all customers that 3 the service is being priced at ASIC. In that 4 particular case no, it would not be subsidized at the 5 service level. 6 Q. I said is it subsidized at the group level? 7 Α. If it's priced at ASIC? 8 Q. Yes. 9 Yes, it is. Α. 10 Ο. But, again, in order to know that or for someone else to verify that, you have to know which 11 services share which group costs. Is that fair to say? 12 13 Α. No, you don't have to do that. You can use the guideline that U S WEST cost handlers have provided 14 with the ADSRC costs. 15 16 ο. At page 4 of your rebuttal testimony line 17 17 you say, "this method" -- and you're talking about 18 "their assigning a spare capacity costs assures that 19 the same proportionate amount of volume-insensitive investments is mapped to products as volume-sensitive 20 21 costs." Do you see that?

22 A. Yes.

23 Q. Have you provided information in support of 24 your cost studies that you have filed here which would 25 allow an independent investigation of that statement?

00714

1 Α. Yes, I have. 2 Q. What are those? 3 Α. I will give you an example. If you could 4 turn to the switched access study. 5 JUDGE ANDERL: Is this the document that we 6 have part of as Exhibit C-66? 7 THE WITNESS: The switched access study was 8 provided in response to one of the interrogatories, 9 JUDGE ANDERL: That's fine. I don't know if 10 we need to refer to an exhibit or not. MR. OWENS: Is that it (indicating)? 11 12 THE WITNESS: Yes. Switched Access and 13 Local Interconnection. JUDGE ANDERL: Thank you. We have part of 14 15 that as C-66. By the way, this is a proprietary exhibit, 16 Α. 17 but if you take a look at page 5-7 you can see in there 18 for setup costs you will see, if we just look at all 19 times of day, you will see that there is one unit of 20 volume-sensitive costs and one unit of shared residual 21 costs assigned to this service under the setup costs. 22 Just to give an example, if you looked at this 23 particular display in the -- in our 1FR and 1FB studies 24 you will see instead of one you will see .087 in this 25 here.

00716 The page 4, line 21 of your rebuttal still 1 Q. 2 you discuss administrative expenses. Do administrative 3 expenses include marketing expenses? No, they do not. 4 Α. Page 6, line 17, you say if the service is 5 Q. б in decline it needs less spare capacity. Do you see 7 that? Yes, I do. 8 Α. 9 Is it possible that a market share may be Ο. 10 diminishing because of new competition but it may be a diminishing share of a growing market. Is that a 11 12 possibility? 13 Α. That is a possibility. And in that event is the service in decline 14 ο. if revenues -- if revenues are increasing but market 15 share is decreasing? 16 17 Α. Well, it would depend upon whether or not a 18 market share could increase and at the same time 19 service could still decline, so I would say no, that 20 may not be true. 21 Ο. So if I understand your answer, a service 22 for which the market share is decreasing but for which 23 total revenues are increasing would be in decline as 24 you have used it in your testimony on page 6? 25 Α. Could you repeat your question, please.

Q. When you say a service is in decline, you
 would include services whose revenues are increasing
 while market share is decreasing?

A. Well, when I think of service being in
decline I'm thinking -- not from a revenue standpoint
but from a unit of sales standpoint. We're selling
fewer therefore there's less demand for the service.
It could well be that the price would increase and it
could increase our revenues even though it does decline
as far as number of units sold.

11 Q. On page 7, I'm still in your rebuttal 12 testimony, line 10 you discuss product managers and 13 pricing above ADSRC. Under what conditions might 14 product managers price below ADSRC?

15 A. Well, we ask product managers to manage the 16 product lines and I've put together an example to show 17 you just how that is done. Would you like me to show 18 you that example?

19 Q. All right. Mr. Farrow, let me ask you how20 long will this demonstration take?

21 A. This is about maybe 10, 15 minutes.

Q. I think I will let your counsel take that upwith you. Let me just ask you whether --

A. Are you saying you don't want me to givethis presentation?

1 Q. Not if it's going to take that long. 2 Α. Oh, okay. 3 Are any services now priced below ADSRC? Q. Are you referring to the services filed in 4 Α. this docket or any U S WEST C services. 5 6 Q. Any U S WEST C services. 7 Α. Yes, there are. What services are those? 8 Q. 9 I don't know all of them. I do know that Α. 10 there are some options within the Centrex product line that are priced below ADSRC, but the total service as a 11 12 whole does recovery its total cost of both service and 13 group-related. Why would a service be priced below ADSRC? 14 Q. What would be the basis for doing that? 15 Well, as I said in my original testimony, 16 Α. 17 there may be a circumstance where the market price may be below ADSRC but above ASIC and still in the best 18 19 interests of the company to offer service. 20 Now, I want to turn to the new DS1/DS3 cost Ο. 21 studies. On May 25 the company provided staff with the 22 1995 cost studies for DS1 and DS3 services in a 23 supplemental response to the staff data request. Is 24 that correct? 25 Α. Yes.

And in the original response the company had 1 Q. 2 provided cost studies for 1993; is that correct? 3 That's correct. Α. In the 1993 studies used -- assumed an 11.5 4 Ο. percent cost of money; is that correct? 5 6 Α. Yes. 7 In the 1995 studies assumed an 11.3 percent Ο. cost of money; is that correct? 8 9 Α. Yes. 10 Ο. And are you familiar with SONET? 11 Α. Yes. 12 Q. Could you tell us what that acronym means? Switched optical network. 13 Α. Is SONET a technology which can reduce 14 Q. 15 maintenance expenses? Α. 16 Yes. 17 Ο. In the 1995 studies reflect or assume that 18 SONET is employed; is that correct? 19 Α. Yes. It assumes that 100 percent SONET 20 network and interoffice facilities. This is the lowest 21 cost technology that's available so we do use it. 22 Q. In the 1993 cost studies did they assume 23 that SONET was utilized? 24 Α. No, they do not assume SONET was utilized. 25 That was the reason why we updated the studies to

include SONET technology. It is a forward looking
 technology and it is a technology that U S WEST is
 deploying in its network today.

Q. And the 1993 cost studies show lower costs
for fixed transport and connecting channels than are
estimated in the 1995 cost studies. Is that correct?
A. I'm not certain about that.

8 Q. If you will accept that subject to check. 9 If the cost savings from SONET are reflected in the 10 1995 studies, and the 1995 studies use a lower cost of 11 money, why are the cost results lower in the '93 12 studies than the '95?

A. The cost results are lower due to the SONET
network. One of the things you have to remember -Q. Maybe -- the '93 studies showed, as we read
it lower costs than the '95 studies. That's where our
confusion is.

18 A. Show lower costs on certain components?
19 Q. Yes, for fixed transport and connecting
20 channel.

A. I don't have the others. I cannot answerthat as to why they're different. I could speculate ifyou would like.

24 Q. Well, rather than that could you respond to 25 a record requisition to see whether that apparent

1 anomaly could be explained? 2 Α. Yes, we could, but I will also point out 3 that a lot of the other costs associated with this 4 service did go down. I don't have to check to know 5 that they did go down. 6 JUDGE ANDERL: That's record requisition No. 7 16. (Record Requisition 16.) 8 JUDGE ANDERL: Does the company have in mind 9 10 what that is? MR. OWENS: Yes, Your Honor. 11 12 Now, if you turn to page 14 of your rebuttal Q. 13 testimony. You state that the company has responded to over 333 data requests. Now all those are not from 14 staff, are they? 15 No, they are not. But I have one book from 16 Α. 17 the staff and one book from everybody else and they're 18 about the same thickness and more have come in since I 19 put those in the book so there's quite a few of them. 20 Sure. I just wanted to clarify that. From Ο. 21 the whole paragraph it sounds like you might be 22 referring just to staff. On line 22 you state staff --23 Which page was that again? Α. 24 We're on page 14 of your rebuttal testimony. Ο. 25 Line 22 you state, "Staff specifically has requested

1 cost support that differs from company studies which 2 has required the creation of new data." Do you see 3 that? 4 Α. Yes. 5 In fact staff has requested the company to Q. 6 rerun cost studies that the company has relied on in this case, but with different assumptions; is that 7 8 correct? 9 Α. That's correct. 10 Ο. And are those the requests you are referring 11 to in your testimony where you say the requests 12 required the creation of new data that the company is 13 not required to produce? That's correct. 14 Α. 15 Your Exhibit 26 provides an overview of the 0. 16 switching usage model; is that correct? 17 Α. Yes. And could you explain briefly what the 18 Q. 19 switching usage model is and how it relates to the 20 switching cost model? I will start with the switching cost model. 21 Α. 22 The switching cost model is a model that generates the 23 investments associated with end office switches and 24 tandem switches. The output of that model is used in 25 the switch usage model. The switch usage model uses

1 demand information and interoffice -- both interoffice 2 and intraoffice demand information to calculate unit 3 cost, so one model calculates the investment and the 4 other model calculates the cost associated with that 5 investment. And basically the switch usage model puts 6 those costs in the form that is used for our tariffs. 7 Ο. And so it's important to know in understanding your cost studies to be familiar with 8 both models, the switching cost model and the switching 9 10 usage model; isn't that correct? 11 Understanding our cost studies, yes, it is. Α. That's why we've put on several sessions for the staff 12 13 to explain these models. We put on a session to explain the SCM model. We've also put on a session 14 that explained our usage spreadsheets. Now, switch 15 16 usage model replaces our usage spreadsheets but the

17 concept, the algorithms are basically the same.

18 Q. And along those lines you met with staff on 19 June 1 and 2 of this year, did you not, to make the 20 switch cost model available for review?

21 A. Yes, we did.

Q. And prior to that in July 26 of 1994, you made an overview presentation of the switch cost model for staff. Is that one of the presentations you were referring to?

## 00723

I am not certain of the exact date but we 1 Α. 2 did do that and there were other parties in this room present as well. 3 That was the summer of 1994? 4 Ο. 5 Summer of 1994, yes. Α. 6 Q. And in the summer of 1994 presentation, did 7 you provide staff with any information about the switching usage model? 8 9 No. I provided them with information Α. 10 regarding the switching spreadsheets, and these spreadsheets are similar to the switch usage model. In 11 12 fact it's the switch usage model which replaced those 13 spreadsheets but the algorithms that were used in the switch usage model are the same ones used in those 14 spreadsheets. 15 16 Q. When did the switch usage model replace the 17 switching spreadsheets? I don't know the exact date but it was late 18 Α. 1994. 19 20 Prior to your filing of this case? Ο. 21 Α. Prior to our filing in this case, yes. 22 Q. So sometime between -- if you accept subject 23 to check that November 14 was the filing date to this 24 docket, sometime between midsummer and November 14 --25 Α. No, it was after that. When I think of

00724

1 filing, I think of the date I filed my testimony. So 2 it was probably in December or early December, late 3 November, that time frame. After the filing of the company's proposal 4 Q. in this docket, though, you changed to the --5 6 Α. Switch usage -- it was approximately the 7 same time. Let's say that. Now, another model supporting the local 8 Q. 9 interconnection and switch access cost studies is the 10 transport model you describe in Exhibit 25; is that 11 correct? 12 Α. Yes, that's correct. 13 ο. Did the company present any workshops for 14 the staff regarding transport model? 15 Yes, we did. Α. When was that? 16 Q. 17 Α. I believe it was June 3rd that we discussed 18 it of this year. 19 Q. Where was that? 20 Α. That was done in Seattle. In Exhibit 28 is your overview of the 21 Q. 22 W I N P C 3 model; is that correct? 23 Α. That's correct. 24 Could you explain what that model has to do Ο. 25 with the switching cost model?

This model is used in the majority of our 1 Α. 2 studies. What it does is it uses -- it applies factors 3 to investments and other expenses to calculate the 4 costs, and I discuss this model in my direct testimony. 5 Now, does Rick Foster work for you? Q. б Α. Not directly, no, he did not. 7 Ο. Did he accompany you to Seattle on the June 1 and June 2 --8 9 Yes, he did. Α. 10 Ο. -- presentation of the switched cost model? Yes. 11 Α. 12 And Mr. Foster provided that demonstration Q. 13 using notebook size portable computer with all the programs necessary to demonstrate and run the switch 14 cost model loaded either on hard drive or diskette; is 15 16 that correct? 17 Α. They were loaded all on his hard drive, yes. And as a result of that demonstration, it 18 Ο. 19 became clear that certain algorithms in the model are global commands which the analyst cannot change; is 20 that correct? 21 22 Α. Yes. And we wouldn't have it any other way. We don't want the analysts going in and changing the 23 algorithms in our models. 24 25 Q. This became apparent as you and staff

1 attempted to test the model's sensitivity to changing 2 the study period assumptions; is that correct? 3 Α. That is correct. In prior --4 Q. 5 One of the things you have to remember about Α. 6 this particular model, this model is used to support 7 several different product lines, and the assumptions 8 associated with the switching costs that they calculate 9 should be consistent with all of those product lines. 10 We don't allow our analysts to go in and change those 11 numbers at will. 12 Ο. Well, were you aware that the study period assumption in the model could not be changed by the 13 analyst prior to June 1st? 14 15 Was I aware that the study period Α. assumptions could not be changed by the analyst prior 16 17 to June 1? Prior to June 1 demonstration to staff? 18 Q. 19 Α. Was I aware of that? 20 Yes. Q. 21 Α. No, I was not aware of that. 22 Q. In the deposition for the rate case you said 23 that the cost of money used in all of your cost studies 24 is hard wired; is that correct? 25 Α. Yes. It should have been hard coated.

Q. Could you explain what you mean by hard
 coated?
 A. What I mean is that in writing the program
 we include that information in the software for the
 particular program and there is no way unless you know

6 how -- unless you know how the program is written, you7 can go in and make changes in it.

8 Q. What other assumptions are hard coated in9 your cost studies?

10 Α. I don't have a complete list of them. I want to turn to a subject we discussed 11 Q. briefly at page 6 of your rebuttal where you stated 12 13 that if a service is in decline it needs less capacity, and by decline you mean the service facing competition 14 so that the company's market share for the service is 15 decreasing; is that correct? 16

17 A. For what ever reason.

Q. Well, let's take the case of a particular customer who has a choice of competitive providers of services. For example, a customer who can satisfy her communications needs through Centrex provided by the company or through a PBX system obtained by a competing vendor. Would you agree that the customer's ability to use the PBX makes it less certain that the customer swill use the company's Centrex service?

00728

1 Α. Customer certainly has options. 2 Therefore from the company's point of view Ο. 3 the customer's demand for Centrex is less predictable and more volatile; is that correct? 4 5 Α. There is a possibility, yes. 6 ο. If the company had installed loops to the 7 customer's building sufficient to support the Centrex service and the customer later chose the PBX 8 alternative, would you agree that a number of loops 9 10 would be idled or left unused in that case? 11 Yes, they could be. Α. 12 But I will say this, that would depend upon 13 the circumstances in which the loops were originally installed. When U S WEST provides services such as 14 Centrex, services that require a lot of capacity, it 15 16 takes a look at the reusability of such things as 17 cable, as switching and what have you before it bids on those particular products? 18 19 Q. Now, you based your cost studies on the company's preferred depreciation rates rather than the 20 21 rates authorized by the Commission; is that correct? 22 Α. I based them on the economic rates that the company has determined. These economic rates are based 23

24 upon what it sees other similar companies such as ours

25 are using and it's based upon, as Dr. Harris talked

about, the fact that technology is changing rapidly and
 that the rates of depreciation should be -- should
 reflect that.

4 Q. And those economic rates are something5 different than the prescribed Commission rates; is that6 correct?

7 A. Yes, they are.

8 Q. And in your testimony I think just now you 9 indicated -- well, your testimony said that we are only 10 doing what our competitors will do; is that correct?

11 A. That's correct.

12 Q. And would you agree that a firm that tries 13 to compete with U S WEST Communications will have to 14 price its services at or better than U S WEST's prices? 15 A. No. I would not agree with that. When you 16 say better than what do you mean? You mean higher or 17 lower? Lower.

18 Q. Lower.

A. No, I would not necessarily agree with that.
Q. That a competitor is going to be able to
compete with U S WEST by charging higher prices than
U S WEST?

23 A. If they have something else to offer.

Q. All other things being equal for the sameservice, a competitor is going to have to price to meet

1 or beat U S WEST's prices; isn't that correct? 2 Α. All other things being equal, yes. 3 Q. And would you accept that such a competitive 4 firm is not guaranteed to recover 100 percent of its depreciation expense? 5 6 Α. No. I will not accept that. 7 Ο. Is your testimony that a competitive firm is guaranteed to recover 100 percent of its depreciation 8 expense? 9 10 Α. No, I didn't say that either. 11 Maybe I misunderstood you. Let me ask it Q. 12 again. Would you accept that a competitive firm is not guaranteed to recover 100 percent of its depreciation 13 14 expenses? 15 Oh, yes, I would accept that it's not Α. 16 guaranteed to recover. 17 But not based upon any of the assumptions 18 you gave earlier? 19 Q. Well, if it set its depreciation rates too high the prices that it must offer to stay in the market may be too low to cover its depreciation expenses; is that correct? That is, yes, a possibility. Α. 24 Ο. Or if we assume that the competitor had to 25 retire some of its plant earlier than planned to

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00732 1 replace it with more modern facilities that are 2 necessary to compete, couldn't that require the 3 competitor to write down some of its assets before 4 they've been fully depreciated? 5 Yes. I think that's one of the reasons why Α. 6 we want depreciation rates that reflect the economic 7 conditions so that we won't have to be forced to go 8 through these write-downs ourselves. But in contrast to competitors U S WEST 9 Ο. 10 communications is guaranteed recovery of the 11 depreciation expense associated with its regulated 12 assets? 13 MR. OWENS: I'm going to object. That calls 14 for a legal conclusion. 15 JUDGE ANDERL: I don't know If the witness 16 can answer this question or not. Maybe he's familiar 17 with what the company can and can't do. Mr. Farrow, 18 can you answer? 19 THE WITNESS: I didn't even hear the 20 question. Will the reporter read the question back? 21 JUDGE ANDERL: Just have Mr. Smith restate 22 it. Is it your understanding, Mr. Farrow, as a 23 Q. 24 nonattorney, that U S WEST is guaranteed recovery of 25 the depreciation expense associated with its regulated

1 assets through the ratemaking process? 2 MR. OWENS: Same objection, Your Honor. 3 That's a legal question. JUDGE ANDERL: Overrule, as to the witness's 4 5 understanding. 6 Α. Is U S WEST guaranteed, was your statement? 7 Ο. Yes. 8 Α. I really don't know if we're guaranteed or 9 not. 10 Ο. When you indicate in your testimony that in using economic depreciation rates the company is only 11 12 trying to emulate its competitors would the company be 13 prepared to forego recovery of some of its regulated assets through a write-down or charge to shareholders? 14 15 MR. OWENS: I'm going to object until 16 there's some foundation laid as to what assumptions 17 this witness is being asked to make that would 18 precipitate such a write-down and what specific assets 19 are to be written down. That question is extremely 20 vaque. 21 JUDGE ANDERL: Mr. Smith. 22 MR. SMITH: I don't think those assumptions

23 are necessary. He indicated in his rebuttal testimony 24 that they chose economic lives because it's what their 25 competitors would do, and I will ask him to assume that

his competitors sometimes write down assets or charge
 them to shareholders and that my question is whether
 the company is prepared to do that.

4 MR. OWENS: I'm going to object further that 5 there's no showing that the conditions are similar and 6 that no competitor is required by a government agency 7 to price some products or services below their cost, 8 which is a necessary condition for a write-down in this 9 situation.

10 JUDGE ANDERL: I will sustain the objection 11 on this.

12 Q. Just a few more questions, Mr. Farrow. Your 13 rebuttal Exhibit 45 provides the summary of the cost 14 studies for virtual colocation service; is that 15 correct?

16 A. Yes.

Q. And what you have provided, you have two pages of cost results, confidential pages 8 and 9 and no other numbers or work papers showing how the costs were derived; is that correct?

A. That's correct.

Q. And the exhibit includes costs for new elements that have not been proposed previously by the company; is that correct?

25 A. I believe that is the case. I think they

1 are being proposed now in the revised tariff. 2 Q. Can you identify which of the company's cost 3 models were used to develop these cost estimates for 4 the new elements? 5 The fiber costs came out of the rent cap Α. 6 model, the investments associated with fiber. Excuse 7 me. I said rent cap. I meant the RLCAP model, 8 the investments associated with the investment 9 facilities came out of RL cap. None of the other 10 company's models were used in these excepted for WIN PC 11 3 which was used in each case. 12 Ο. Are the costs for these new elements derived 13 using only computer models or are there also work 14 papers? 15 There are work papers. Α. Have those been provided to anybody? 16 Q. 17 Α. I believe they have. They crossed my desk 18 and I sent them on. 19 Q. Was that the batch that was provided to MCI 20 yesterday? 21 MS. WEISKE: I'm sorry, what did you say was 22 in there? 23 MR. SMITH: The work papers for the new rate 24 elements for the virtual colocation service. 25 MS. WEISKE: That hasn't been provided nor

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00736
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1 have we found out when it's going to be provided. 2 JUDGE ANDERL: You asked for it? 3 MS. WEISKE: Yes. JUDGE ANDERL: Mr. Smith, do you want to be 4 copied on the record requisition response? 5 6 MR. SMITH: Yes. 7 These cost studies relied on the same Ο. assumptions you've used about depreciation rates of 8 cost of money and fill factors? 9 10 Α. Yes. When you say fill factors I'm assuming you mean that we use fill factors, period, and fill 11 factors is not the same in every study that we were on. 12 13 Ο. Right. You used the same objective or objective and average fill factors? 14 Yes, we do. We do calculate costs at 15 Α. 16 objective as well as average fill. 17 Ο. Let me ask you this. If those studies were rerun using the assumptions that staff set forth in its 18 19 request 34, can you tell us how long that would take? 20 Α. No. 34, which one was that? 21 Well, it asked for you to rerun your cost Ο. 22 studies using your authorized rate of return, return 23 the Commission authorized, depreciation rates and there were a couple of other factors. Objective fill? 24 25 Α. Of course you realize we've already

1 calculated these at objective fill.

2 Q. I'm just asking.

3 Α. I would say approximately two weeks. And is that because some of those factors 4 Ο. are hard coded in your cost study? 5 6 Α. I'm guessing at the two weeks. I know we've 7 already run some studies like that before so hopefully 8 the WIN PC 3 model is already set up to do it. A lot 9 of that time is just preparation time, running and 10 reviewing the studies and then, you know, mailing them 11 out, things like that. I think this case most of that 12 is administrative. MR. SMITH: Those are all my questions. 13 JUDGE ANDERL: Thank you, Mr. Smith. Have 14 15 the intervenors agreed on who is going to kick off 16 amongst yourself? 17 MR. BUTLER: Well, I will volunteer. JUDGE ANDERL: First one with his hand in 18 19 the air. Go ahead, Mr. Butler. 20 21 CROSS-EXAMINATION 22 BY MR. BUTLER: I just can't resist the temptation of trying 23 Q. 24 to clarify what I think are some misconceptions about 25 the use of the various cost concepts. Now you've

1 discussed the concept of service specific cost and 2 group specific cost, correct? 3 Α. That's correct. Now, with respect to service specific costs, 4 Q. 5 you talked about volume sensitive costs and 6 service-specific volume insensitive or fixed costs, 7 correct? Α. 8 Right. 9 Now, a service-specific direct cost would Ο. 10 include both volume sensitive and volume insensitive 11 costs, correct? 12 Α. Yes. A group of specific costs generally when you 13 ο. 14 use that term you're talking about a volume insensitive 15 cost; is that correct? Yes. They're usually volume insensitive 16 Α. 17 costs. And a group volume insensitive cost 18 Q. 19 represents the costs that would be -- let me say a 20 group specific cost represents the cost that would be 21 avoided if a group of services were not offered; is 22 that correct? 23 Α. That's correct. 24 ο. And the service specific costs would 25 represent the costs that would be avoided if a

1 particular service were not provided?

2 A. That's correct.

3 Q. Now, to determine whether a specific service 4 were subsidized you would want to know whether the 5 total revenues derived from that service was sufficient 6 to cover the service specific volume sensitive and 7 service specific fixed costs, correct? 8 Α. Yes, and that's labeled as total service incremental costs. 9 10 Ο. Now, total service long-run incremental cost represents a total cost for the service as a whole, 11 12 correct? Well, I've seen a lot of definitions of what 13 Α. total service long-run incremental costs are, and one 14 of the reasons why you don't see it in any of our 15 original studies I assumed it includes both the service 16 17 and some group-related costs as well. 18 0. What I'm trying to get at is when you talk 19 about a total service long-run incremental cost you're 20 talking about cost for service as a whole as 21 distinguished from your average service incremental 22 cost which is the total service long-run incremental 23 cost expressed on a unitized basis? 24 Α. That's correct. 25 Q. Now, if you are to cover all your costs for

00740 1 a group of services you must not only cover the service 2 specific costs but you must cover the group specific 3 costs as well; isn't that correct? That's correct. 4 Α. 5 Now, you said just a minute ago that a Q. 6 particular service would not be subsidized if the 7 revenues from the service covered the service specific 8 costs, volume sensitive and volume insensitive, but 9 that the group specific costs could be covered by, say, 10 are other services within the group and you could not 11 say that a particular service was being subsidized; is 12 that correct? 13 Α. Yes, that's correct. So your only concern is that the group 14 Q. specific costs are covered by the total revenues 15 16 derived from the services that comprise that group? 17 Α. That's correct. Now, when you talk about various cost 18 Q. 19 measures to be used for price dollars, you distinguish 20 between an absolute price floor and what you would 21 refer to as a target price floor; is that correct? 22 Α. That's correct. Now, the ASIC or average service incremental 23 Q. 24 cost is what you would call the absolute price floor

25 for a particular service; is that correct?

A. That is the price floor for a service, yes,
 when it covers the service cost, yes.

3 Q. Now you would like to see a service priced 4 at the average direct and shared residual cost or ADSRC 5 level to insure some average contribution towards your 6 group specific costs; is that correct?

7 A. That's correct.

8 Q. But if in fact those shared residual costs 9 were covered by other services in the group it really 10 doesn't make that much difference to you in terms of 11 deciding whether a particular service is subsidized as 12 long as it covers its ASIC cost, right?

13 A. That is correct.

14 Q. Okay.

A. However, our recommendation is that since --we have a situation where products are spread throughout the company through different product managers, and sometimes group-related costs are spread between different product managers. We recommend that they use our guideline ADSRC in pricing their services and they manage their own product lines around that price. We also tell them that of course that they have to recover some of the common overheads of the corporation as well, so -- and I do have an example. You've gone through a very long lot of questions. I

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1 have an example I would like to go through --Q. Just a minute. I just got a couple of more. Α. -- to explain to you how we do this. You testified a few moments ago that you do 4 0. 5 have some services that are priced below ADSRC but 6 above ASIC and you used an example of some Centrex 7 functions; is that correct? That's correct. Α. But in total it is your opinion that your Ο. 10 shared residual costs are covered from the group of services or from the services whole? 11 12 Α. Well, in this particular case they're 13 covered through the Centrex product line, period, because we've asked our product managers to manage their own 14 15 product lines around those costs even though there 16 could be some overlapping of some shared costs through 17 someone else's product line. Now, your concept of ASIC and your concepts 18 Q. of ADSRC are both figures expressed on a per unit 20 basis; is that correct? 21 Α. That's correct. Q. But your group specific costs or what you 23 would call shared residual costs are in fact volume 24 insensitive; isn't that correct? 25 Α. Yes, for the most part, yes.

1 Q. So in fact you could recover those in one 2 lump sum from one customer; isn't that correct? 3 Α. It is conceivable that is true, yes. And there's nothing in particular that says 4 Q. that it has to be that those volume insensitive costs 5 6 have to be allocated on the basis of any one particular 7 unit of measure; is that correct? 8 Α. That is correct, but there are problems with doing it that way. 9

10 Q. For example, you could have a shared cost 11 and you could recover it on the basis of a customer 12 charge or on the basis of a number of access lines or 13 on the basis of a minute of use; isn't that correct?

14 A. Yes, it is correct.

15 Q. So your choice of units is arbitrary; is 16 that right?

17 A. No, it's not arbitrary.

Q. Well, meaning arbitrary in the sense you have alternatives; isn't that correct? The cost is not caused on the basis of any particular unit; isn't that right?

22 A. Typically, no, but --

23 Q. It is a volume insensitive cost, incorrect?

A. It's a volume insensitive cost, but

25 typically we assign it or calculate it based upon the

00743

1 same units that the volume sensitive costs were 2 calculated as well. 3 You calculate it in your cost studies but Ο. that's not the way the costs are incurred; is that 4 5 correct? б Α. On a volume-sensitive basis. 7 Ο. Talk about shared residual -- what you call a shared residual cost. 8 Yes, that's correct. They're not incurred 9 Α. 10 on a service basis usually. They can occur mainly 11 based upon a group of services. Q. 12 Let me get to some real questions. 13 Yesterday with Mr. Owens you discussed the question of treatment of intrapremise building wire, for example, 14 15 riser cable? 16 Α. Yes. And he took those questions and he threw 17 Ο. 18 them your direction so here they come. Can you explain 19 to me how, if at all, intrapremise building wire, riser 20 cable, is accounted for in your cost studies? Yeah. It is accounted for in our RLCAP 21 Α. 22 model and it is included in one of the basic six 23 designs that are included in RLCAP, and that is the 24 design for a high rise building. 25 Q. So you include riser cable, let's say, that

1 extends from the basement of a high rise building up to 2 whatever the network interface is on a higher floor in 3 your estimates of loop costs; is that correct? Yes, we do. 4 Α. 5 Q. And so your average loop length includes б that distance? Is that true for basic exchange 7 service? Yes, it is for basic exchange service. 8 Α. 9 And how do you do that? Do you do some Ο. 10 counting of the buildings in which the network interface is located in the basement as opposed to on a 11 12 higher floor? 13 Α. No, we do not. How do you do that? 14 Q. 15 Α. What we do is we have a basic design for a 16 building and we assume that there's a certain amount of 17 riser cable that's going to be required for that 18 building, and we use that in our models to calculate 19 the costs. 20 ο. Do you have a weighting where you assume 21 that certain percentage of the building? 22 Α. No, it's not weighted. 23 Do you assume all buildings have riser Q. 24 cable? 25 Α. We assume all buildings that we use in a

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1 high rise model have riser cable but we don't assume 2 that all buildings are high rise. We use certain 3 percentage of those buildings. Is it in fact the case that some high rise 4 Ο. buildings the network interface is located in the 5 б basement and so there is no riser cable? 7 Α. That is a possibility, but we're finding in most cases our customers are asking us to provide that 8 high rise cable. 9 10 Ο. You have made no attempt to figure out what percentage of high rise buildings actually have the 11 network interface in the building; is that correct? 12 13 Α. Made no attempt? 14 Q. Right. Just made an assumption in your designs that all had the network interface into the 15 16 building? 17 Α. I cannot tell you that we made no attempt to find that out because I really don't know what attempt 18 19 was made. 20 But it wasn't --Q. 21 Α. But the assumption was made that it was 100 22 percent, yes. Could you in response to the next record 23 Q. 24 requisition provide us some example of how the building 25 riser cable is included in the loop length study that

00747 1 you've done if that would be possible? 2 Α. Yes, we can. JUDGE ANDERL: That's No. 17. 3 We can provide you with --4 Α. 5 Could you provide the specific work papers Q. б and the loop length study as it applied to basic 7 exchange? 8 Α. Yes. 9 JUDGE ANDERL: That's No. 17. 10 (Record Requisition 17.) 11 Q. I would next like to ask you just a few 12 questions about the Hewlett-Packard measurement costs. You have on Exhibit C-29 specifically at page 2 some 13 figures representing the HP measurement costs and 14 15 billing and collection costs there. Do you see those? 16 Α. Yes. Would you accept subject to check that the 17 Ο. 18 HP measurement costs and billing collection costs are 19 more than one half of the total local switching ADSRC 20 costs? 21 Α. No. I would not accept that because I just 22 checked it and it's not. 23 HP measurement costs plus billing and Q. 24 collection costs compared to the total local switching 25 to ADSRC costs.

1 Α. Are you looking at the same number? Maybe I 2 have the wrong exhibit. I'm sorry. I'm still looking 3 at my old exhibit. No. It's still the same numbers. 4 Are we looking at the --5 Local interconnecting service? Q. 6 MR. BUTLER: May I approach the witness? 7 JUDGE ANDERL: Yes. I don't see that. It's over half of the 8 Α. 9 total? Well, this number right here. 10 JUDGE ANDERL: Is the witness answering the question now? 11 12 MR. BUTLER: Excuse me. According to what I see here end office 13 Α. 14 switching is more than --15 Could you tell me what the percentage is? Q. A. Half. It's less than half. 16 Q. Is it approximately --17 A. It's less. About -- I don't know. 18 19 Q. Just slightly less unless my math is 20 inverted? It's not more than. 21 Α. 22 Q. Would you compare the measurement costs for 23 local interconnection service to the measurement costs 24 for switched access service on page 1 of Exhibit T-29? 25 Would you accept subject to check that that's

1 approximately three times -- that the local HP 2 measurement costs are approximately three times the 3 costs of IXC measurement for switch access service? I will agree to that. 4 Α. 5 Back up. If I'm correct U S WEST is Q. 6 deploying -- intends to deploy the Hewlett-Packard 7 measurement system and spread the costs over its 14-state region; is that correct? 8 We have -- we're going to deploy a 9 Α. 10 Hewlett-Packard measurement system and the cost that we calculated was based upon deploying the system over the 11 12 entire U S WEST network. 13 Ο. So you did not allocate the entire cost to the state of Washington, correct? 14 No, we did not. 15 Α. 16 Ο. And you would be allocating only a portion 17 of the cost to the state of Washington, but you would be spreading it over, in effect, all of your access 18 19 lines or minutes of use in Washington? 20 Α. We are calculating costs based upon what's 21 going to be used in the state of Washington as far as 22 from an investment standpoint, and those investment 23 assumptions are similar in Washington as they are in 24 other states, and it does include -- based upon the 25 usage for Washington?

Q. Would you agree that a new entrant, for
 example, one such as Electric Lightwave, would have a
 much smaller base over which to spread the costs of any
 measurement system that it would be required to deploy?
 A. Yes.

6 Q. If a new entrant like Electric Lightwave 7 were to have to measure local traffic exchange with U S 8 WEST, are you aware of whether there is cost 9 measurement system available to Electric Lightwave that 10 costs less than the one that U S WEST has decided to 11 deploy?

12 A. No.

Would you agree that if Electric Lightwave 13 Ο. has to implement and deploy a measurement system for 14 local traffic exchange with U S WEST that it would not 15 16 only have to purchase a measurement system, install it, 17 operate and maintain it, but it would also have to perform auditing functions, reconcile billing disputes 18 19 and bill and collect for the usage measured? 20 Α. I will agree that Electric Lightwave may want to do those particular things as far as the 21 22 auditing and things like that.

Q. And having a smaller base to spread those
costs over could represent a significant barrier to
Electric Lightwave's success in the local exchange

1 market. Would you agree with that? 2 Α. I would agree with one thing, and I'm not an 3 expert on the building systems that are available in 4 this country, and I really don't know if there is a 5 system out there that can be purchased at a price that 6 is comparable to U S WEST. I'm really not an expert on 7 all the building systems that are available. MR. BUTLER: Thank you. I have no further 8 9 questions. 10 JUDGE ANDERL: Well, I think we'll go ahead 11 and --12 MR. WAGGONER: I just have one question. JUDGE ANDERL: All right. 13 Then we'll take a recess before 5. 14 15 CROSS-EXAMINATION 16 17 BY MR. WAGGONER: Could you please look at Exhibit C-29 as 18 Q. 19 you've been looking at, and look at the line that is 20 designated end office switching, and I know this is a 21 confidential number so I'm not going to ask you the 22 actual number. That is the AD -- I'm still having 23 trouble with this -- SRC, correct? 24 Α. Yes. 25 Q. And if U S WEST were to charge local

1 interconnectors only for end office switching without 2 measurement and billing and collections and it wanted 3 to charge them at ADSRC, would that be the number it 4 would charge? 5 A. We have no way of charging them without

5 A. We have no way of charging them without6 billing them so you would have to include the billing7 and collections.

8 Q. I'm asking you to exclude the billing and 9 collections and the measurement and just focus on the 10 actual cost of end office switching?

A. That's the cost of end office switching,
 that's the ADSRC, the end office switching.

13 MR. WAGGONER: Thank you. That's my only14 question.

15 JUDGE ANDERL: Let's go ahead and recess 16 just until 5:00 and we'll pick up on cross on this 17 witness.

18 (Recess.)

JUDGE ANDERL: Let's be back on the record.
Mr. Mutschelknaus is going to be the next person to
cross Mr. Farrow.

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23 CROSS-EXAMINATION

24 BY MR. MUTSCHELKNAUS:

25 Q. Good afternoon, Mr. Farrow.

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1 Α. Hi. 2 Q. I think this will be relatively brief. I 3 think Dr. Wilcox absorbed most of my thunder, but I 4 would like to clear up a couple of things. One of the 5 things I would like to try to establish is the cost 6 difference between -- to U S WEST providing DS1 versus 7 DS3 service. We were able to establish through 8 Ms. Wilcox what the price difference was but I think 9 we're going to need your help on the cost difference. 10 Do you recall being asked in discovery to identify the 11 facility differences between the DS1 and DS3 transport 12 facility? 13 Α. Are you referring to the number 008. That's right. The exhibit that has now been 14 Q. 15 marked but not admitted as Exhibit No. 58? 16 Α. Yes. 17 Ο. And you were asked or the company was asked in that data request for the typical interoffice fiber 18 19 link, "identify every difference in equipment and facilities used by U S WEST to provision a DS1 and a 20 21 DS3"; isn't that correct? 22 Α. That's correct. And did you prepare the response that is --23 Q. the response to IAC 01-088? 24 25 This response was prepared by the cost Α.

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1 group.

Q. Under your supervision?

3 A. I don't supervise them but I do concur with4 the response.

5 And as I understand this response you have Q. 6 responded by listing the equipment that is entailed in providing a DS1 service and in DS3 service and listed 7 them separately in this response; isn't that correct? 8 9 Α. I don't think that was the question. 10 Question says identify every difference in equipment 11 facilities used by U S WEST to provision DS1, DS3. 12 Doesn't say service. So there might be some components 13 here that may not be included for the particular 14 service. 15 All right. And as I understand the Q. 16 response, there are three equipment differences. Would

17 you agree with that?

18 A. Yes, that's correct.

19 Q. Can you tell me what the equipment

20 differences are?

A. The equipment differences are DXX 3 cross
connect, intraoffice repeater. DS3, DS1 MUX, M U X.
MR. OWENS: Just for clarifying what does
that stand for?
THE WITNESS: Multiplexer.

00755 And each of those three items are needed to 1 Q. 2 provide DS1 service but not DS3 service? 3 Α. No. Again you keep putting service on the end of it. Provision of a DS1 or a DS3. I think for 4 5 the particular DS1 and DS3 service you can probably 6 drop the intraoffice repeater if we're going to talk 7 about those services. Now you're saying if you're providing the 8 Q. service it's only two of these three? 9 10 Α. In some cases we may use an intraoffice repeater for DS1 but for particular service private 11 12 line DS1 services is what you're referring to? 13 ο. Yes. We don't provision an intraoffice --14 Α. typically don't provision an intraoffice repeater so we 15 16 don't include it in our cost study. 17 ο. You include the DS3 cross correct and the 18 DS3 to DS1 MUX? 19 Α. Oh, yes. 20 And other than those items, is there any Ο. 21 difference between the DS1 and the DS3 that you're 22 aware of? 23 Α. Not that I am aware of. 24 Now, you made a distinction earlier in Q. 25 saying that there was some difference between

provisioning a DS1 and DS3 facility versus a service.
 I'm not sure I understood that distinction. Can you
 help me?

A. Yes. In some cases, you know, we provide
DS1. DS1 are used only for private line type of
service. DS1s are also used for some switched type of
services as well as for interoffice facilities.

8 Q. So is a DS3, is it not?

9 A. That's true.

10 Ο. Now, we then ask you to identify, and it's included in your responses to C-59, C-60 and C-61, and 11 I forewarn you that this is confidential so let's not 12 13 talk about the numbers. But I asked the company to identify for us the equipment furnished and installed, 14 investment cost to U S WEST for each of those three 15 16 items that are required for the DS1 facility at least 17 in some instances and not for the DS3; is that right? 18 Α. Yes.

19 Q. Were you involved in preparing the responses20 to C-59, C-60 and C-61?

A. I do remember these responses. I should
point something out to you, however. These are 1993
costs and more up to date costs should be used in any
analysis. Of course we've completed new studies since
this time.

1 Q. These are the numbers you gave us, though, 2 isn't that right? 3 Α. That's correct, yes. MR. MUTSCHELKNAUS: Your Honor, I would move 4 5 the admission of Exhibit 58, C-59, C-60 and C-61. 6 JUDGE ANDERL: Is there any objection to 7 those? MR. OWENS: No, Your Honor. 8 9 JUDGE ANDERL: Those four documents will be 10 admitted as identified. (Admitted Exhibits 58, C-59, C-60 & C-61.) 11 12 Now, do you have Exhibit C-62, Mr. Farrow? Q. 13 Α. This was not marked -- let me take my clip off and let me see. Yes, I do have it. 14 15 Now, this is a demonstrative exhibit that Ο. 16 was prepared by me in which I've attempted to take the numbers that were included in C-59, C-60 and C-61 and 17 18 use them to compute the cost difference between a DS1 19 and DS3 facility to U S WEST. Without mentioning the 20 numbers in the public record, can you accept subject to 21 check -- and you have the exhibits in front of you, you 22 can check if you want -- that the annual EFI cost for 23 the DS3 cross correct interoffice repeater and DS3 to 24 DS1 MUX are indeed the cost numbers that you provided 25 in discovery?

You're talking about the number on the first 1 Α. 2 line where I see the lines that says DS3 cross connect. 3 Then there's a double dash and then there's a number 4 there? 5 Q. That's correct. б Α. That's the number we provided, correct. 7 0. And in order to convert that into an annual 8 -- excuse me. In order to convert it into a monthly 9 cost to U S WEST I would divide that by 12, wouldn't 10 you? 11 Α. Yes. 12 Q. And in order to break it down to the DS1 13 level I would divide it by 28; is that correct? That's not how typically we do it, calculate 14 Α. 15 a DS1 cost. 16 Q. How would you do it? 17 Α. We would make some assumptions about the 18 objective fill associated with the equipment --19 Q. Well let's use --20 Α. -- assume that there was some spare capacity 21 associated with it. 22 Q. So let's use the DS3 the DS1 MUX as an 23 example. That DS3 DS1 MUX has the capacity to create 24 28 DS1s, doesn't it? 25 Α. That's correct.

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1 Q. And so what you're saying is that you would 2 divide it by some smaller number because of an 3 objective fill factor? 4 Α. Yes. 5 And what is your normal objective fill Q. б factor? 7 MR. OWENS: Is that a confidential number? MR. MUTSCHELKNAUS: I believe it was 8 9 provided in discovery. 10 Α. I don't know the number off the top of my 11 head. What do you want to do? Well, I don't know if I -- I don't want to 12 Q. 13 reveal a number that may be considered confidential 14 since counsel has indicated it may be. 15 MR. OWENS: I asked the witness if he knew. 16 If it's been provided in a nonconfidential response 17 then clearly that's a different answer. MR. MUTSCHELKNAUS: Let me check. I'm glad 18 19 I checked because it is designated confidential. 20 Q. Do you have a copy of the response to AT&T 21 01-014? 22 JUDGE ANDERL: Looks like he's going to be 23 provided it. 24 You can use mine if you like. Q. 25 A. All right. I have it.

1 Q. And on the second page of that, attachment 2 A to the response there are fill factors included in 3 there, are there not? Yes, that's correct. 4 Α. 5 Q. Are those the ones you would use? б Α. Yes, they are. 7 So instead of using 28, what you would do is Ο. 8 multiply 28 by that number or would you use the optimal 9 fill factor or the ultimate fill factor? 10 Α. The ultimate fill factor will be used to 11 calculate the volume sensitive costs. The optimal fill 12 factor would be used to calculate the average direct 13 and shared residual costs. And so you would use if you were going to 14 Q. 15 use -- compute the ASIC number you would use the optimal fill factor listed in this exhibit. Did I get 16 17 that right? The ultimate. 18 Α. 19 Q. The ultimate fill factor? 20 Α. Yes. With that modification, would you change the 21 Ο. 22 analysis here in terms of how I've computed the total 23 cost difference between -- total cost LRIC cost 24 difference between DS1 and DS3? 25 Α. Yes.

How else would you change it? 1 Q. 2 Α. Well, you say -- I'm sorry I didn't 3 understand your original question. 4 Okay. Well, as we have discussed what we've Ο. done is taken the EFI investment cost to U S WEST of 5 6 the three identified differences between the two 7 facilities. We've divided it by 12 months to come up 8 with a monthly cost and I had divided by 28 DS1s. 9 You're indicating that you would use a fill factor to 10 reduce that by several DS1s? 11 Α. Yes. With that modification, is there anything 12 Ο. else you would do differently to come up with a total 13 cost difference? 14 15 Α. Yeah. I would double the numbers because we 16 have this on each end of the circuit. 17 ο. You have this equipment on each end? 18 Α. Yes. 19 Ο. And don't you have it on one end of the DS3 20 as well? I mean --21 Α. Yes, we do. 22 Q. So why would you double it to make a 23 comparison? You have it on two ends of one and one end 24 of the other; isn't that right? 25 Α. I have it on two ends of both of them. DS3

1 I would have it on both ends and DS1 I would have it on 2 both ends. 3 Q. Your testimony is that you would take the final number and multiply it by two? 4 5 Yes. It would be to -- this is part of the Α. 6 channel terminating equipment, and it would be channel 7 terminating equipment on each end of the circuit. Okay. Well, it sounds like we have enough 8 Q. of a difference. I will just leave that aside for now. 9 10 All right, Mr. Farrow. Also need your help 11 getting a few other things into the record. We had 12 also asked the company to identify the cost to U S WEST 13 of providing tandem switch services in IXC 01-020 14 which has now been marked as C-64. And it was provided in response, a copy of a switched access service cost 15 16 study dated January 1995. Were you involved in the 17 production of this document? 18 Α. Yes, I was. 19 Ο. And was this document used in the calculation of the initial transport prices proposed 20 21 here for switched services? 22 Α. Yes, it was. I'm sorry. Could you pardon 23 me just for a second here. I've unwrapped too many 24 pages. 25 The results in this document have been

1 updated since this document was supplied. This was one 2 of the corrections to my testimony. 3 Q. The update -- the document that has already 4 been admitted is C-66; is that correct? 5 Α. That's correct. 6 MR. MUTSCHELKNAUS: Your Honor, I move 7 admission of C-64. MR. OWENS: No objection. 8 9 JUDGE ANDERL: All right. That document 10 will be admitted. (Admitted Exhibit C-64.) 11 12 Q. And I think finally along those lines, 13 Mr. Farrow, we asked you to break out in IXC01-038 the 14 volume sensitive costs, volume insensitive costs 15 average direct costs and shared residual costs, for the 16 tandem switching and an answer was supplied and you're 17 listed as the respondent. Were you in fact involved in 18 producing that? 19 Α. Do I have that in front of me? 20 C-65. Q. 21 Α. Yes. Again, this is an old document. 22 Q. This is indeed the breakout of, if you will, 23 those costs in connection with the January 1995 study, 24 is it not? 25 Α. That's correct.

1	MR. MUTSCHELKNAUS: I would move admission.
2	JUDGE ANDERL: Any objection?
3	MR. OWENS: None, Your Honor.
4	JUDGE ANDERL: That would be admitted also.
5	(Admitted Exhibit C-65.)
6	Q. Now, with all of those in there, perhaps we
7	can focus on what they show and all I'm going to do,
8	Mr. Farrow, spending a few minutes focusing on what the
9	difference is these cost studies as they progress.
10	Let's talk about dedicated for a moment. I'm sorry.
11	Let's talk about the fixed charges and dedicated.
12	Now, we have a 1993 cost study for the
13	dedicated services, which is labeled C-63, and let's
14	take a look at to be simple, refer to the DS1 cost
15	study and let's compare that to the updated private
16	line cost study for DS1 which is C-55.
17	A. Did you say 55?
18	Q. C-55. So I guess I would like to compare
19	C-55 and C-63.
20	MS. PROCTOR: He may have to get those from
21	Ms. Wilcox.
22	MR. MUTSCHELKNAUS: I supplied counsel with
23	a copy of all of them.
24	Q. And let's take a look at what happened
25	between 1993 and spring of 1995. Now, the 1993 study,

1 can you clarify for me whether those are ASIC costs or 2 ADSRC costs? 3 Α. Those would be our traditional LRIC costs 4 which would be equivalent to ADSRC. 5 MR. TROTTER: Which exhibit are you 6 referring to? 7 MR. MUTSCHELKNAUS: C-63. And I'm looking 8 now at the last page of that Exhibit C-63, and 9 particularly the DS1 interoffice transport per DS1 10 numbers. 11 And I believe you just testified that those Q. 12 are the ADSRC costs for that time period? 13 Α. Yes. Now --14 Q. Could you show me the page that you're 15 Α. 16 looking at because I have two blank pages here and I 17 want to make sure we're on the same page. 18 Q. (Indicating.) 19 Α. That looks like it. 20 Does get confusing. I'm also looking at the Q. 21 final page of C-55, which is labeled Results Summary, 22 Washington 1995 LRIC DS1 Interoffice Transport? 23 Α. Yes. 24 And that also gives an ADSRC cost for the Ο. 25 same DS1 service, interoffice transport service, does

1 it not?

2 A. Yes.

3 So in effect the numbers listed here as Q. 4 ADSRC costs are updated 1995 numbers over the 1993 numbers in C-63; is that right? 5 6 Α. They're not updated numbers. What this is 7 is a new study. DS1 study that was done in 1995 is a brand-new study and the reason the study was done was 8 to reflect the forward looking technology that is SONET 9 10 that we're installing in our network today. 11 All right. Well, let's look at the charges. Q. Without mentioning any numbers, please, but just take 12 as an example the 18 to 25-mile band since up until now 13 I think all of the examples everyone has used has been 14 15 10 miles. We'll stick with that? MR. OWENS: You mean the 8 to 25. 16 17 MR. MUTSCHELKNAUS: Yes. If you look at the ADSRC costs between the 18 Q. 19 two, would you agree with me that it has not changed materially over that time period for the fixed cost? 20 21 Α. Yeah, I agree with that. 22 Q. But the mileage cost dropped quite dramatically, did it not? 23 24 Α. That's correct. 25 Q. And the same -- I think we can go through

1 the numbers if you would like, but I think if you 2 compare the DS3 cost study, the new 1995 one, which is 3 C-56 with C-63, you would find the same relationship, 4 would you not, that the fixed charge didn't change very 5 much for 8 to 25 miles but the mileage charge dropped б dramatically? 7 I don't have C-56. Α. MR. O'JILES: (Handing.) 8 9 And I'm comparing this to C --Α. 10 Ο. C-63 also has a DS3 study incorporated? JUDGE ANDERL: On what page? 11 12 THE WITNESS: I think that's the problem. 13 That's the blank pages. Page 68. It's marked page 6 on the bottom 14 Q. which is one --15 16 Α. Oh, I see it now. 17 Ο. The sixth page of the exhibit? 18 Α. Okay. 19 Q. So if you compare the sixth page of C-63 to 20 the third page entitled Results Summary of C-56, I 21 think you would find the same to be true. Are you with 22 me now? Let's look at 8 to 25 miles again. ADSRC 23 costs. Again, the 1993 DS3 cost study, I assume these 24 numbers are ADSRC numbers or the equivalent? 25 Α. Yes, they are.

1 Q. And without mentioning the number in the 8 to 25 mileage band if you compare the fixed cost to the 2 3 fixed cost in the 1995 study, would you agree with me 4 it's not changed materially? 5 There's only a slight change. Α. б ο. But the mileage charge has dropped 7 dramatically again, hasn't it? It's dropped but not nearly as much as on 8 Α. the other study. It has dropped some. 9 10 Ο. Do you have an explanation of why that's the case? 11 12 That's the deployment of new technology, Α. 13 SONET technology. Well, then, I'm curious in the switched 14 Q. access cost studies, which are now labeled --15 16 Α. I should point something out to you, explain 17 to you a little bit difference about the technology. In our former cost study we use T carrier type 18 19 technology. T carrier technology required repeaters every mile, and so the mileage cross are going to be 20 21 different. In the new studies we use SONET technology 22 100 percent fiber and fiber doesn't require as many 23 repeaters. The only repeaters that are required is at 24 locations offices that are in between on a particular 25 circuit.

1 Q. Now, I would like you to take a look at the 2 two switched access cost studies which are C-64 and 3 C-66. C-64 was your January cost study there as 4 revised in April of 1995; isn't that right? 5 Α. Yes. 6 Ο. And if I look at the two of these, somehow 7 between January and April the fixed charge, without 8 giving the number, the ADSRC fixed cost doubled? 9 MR. OWENS: What page are you referring to, 10 Counsel? 11 MR. MUTSCHELKNAUS: On C-66 it's the final page. And on C-64 it's the second to the last page. 12 13 So the C-66 is labeled -- the page I'm referring to is 14 labeled 1995 long-run incremental cost switched access service local transport restructure format. C-64, the 15 16 page is entitled the same, switched access service 17 local transport restructure format 1995 long-run 18 incremental cost. And if I look at the third box on 19 that page, tandem switch local transport nondistance 20 sensitive, which is the fixed charge. 21 ο. Isn't that correct? 22 Α. Yes. And I think it's the fixed -- we had 23 Q.

24 established in the case of the dedicated that the fixed 25 charge stayed about the same between 1993 and 1995 yet

I'm puzzled how between January and April of 1995 the
 fixed charge in the switch category -- or the fixed
 costs in the switched category more than doubled. Do
 you have an explanation?

5 A. Yeah. That explanation by the way is on my 6 Exhibit BEF-6. I think it's Exhibit C-29, page 1 at 7 the bottom of the page I've shown an explanation of why 8 we update the costs and I will read it for you. It 9 says, "tandem switch local transport termination costs 10 would change to include the costs of channel 11 terminations at the tandem switch. The 2-10-95 results 12 only include the costs of channel terminations at each 13 end of a pair point."

When our transport model calculates costs it calculates it -- it assumes a termination at each end of a circuit, so it assumes a termination from one location to another location. Some of the circuits, however, some of the circuits, however, pass through a tandem, so if a tandem it must also assume that there's termination in the tandem, and so this was just the correction from the original study.

22 Q. It doesn't have anything to do with the fact 23 that one is transitionally competitive and the other is 24 a monopoly service?

25 A. Right now I need to address that issue. In

1 the cost group we consider ourselves to be a safe 2 harbor organization. We do not do cost studies based 3 upon competitive purposes of any cost study. I believe my final line of questions. I 4 0. 5 would like to focus on your most recent version of that 6 cost study which is C-66. I guess that's the most 7 recent version, is it, or do you have one that's even 8 more recent than this? I have a lot of things that you handed me 9 Α. 10 here. I'm sorry. I'm looking at C-66 which is the 11 Q. April 1995 switched access cost study. 12 13 Α. I have it. By the way, these are excerpts from the work papers in C-66 --14 Right. 15 Q. -- of the switched access in the local 16 Α. 17 interconnection cost study. Now, if I again refer to the final page of 18 Q. 19 that exhibit -- and let me just explain, put this in context. We are obviously concerned as other folks are 20 21 on this docket about this concept of an average shared 22 residual cost, and I would like to explore with you a 23 little bit in the case of tandem transmission and 24 tandem switching, particularly let's just focus on 25 tandem switching for now, tandem switching charge, how

1 we come up with that average shared residual cost. So 2 if I look at the second box here entitled Tandem 3 Switching and I understand the second or the middle 4 number in that box represents the average shared 5 residual cost that you're trying to recover in your б proposed tandem switching charge; is that right? 7 Α. That's correct. And if I read this correctly without 8 Q. 9 revealing any numbers it's nearly double what the 10 average service incremental service cost is; isn't that 11 right? 12 Α. Yes. Now, I understand you establish a group of 13 ο. services for determining who is going to get hung with 14 15 this average shared residual cost? MR. OWENS: I'm going to object to that 16 17 pejorative characterization. MR. MUTSCHELKNAUS: Let me modify that. 18 19 Ο. Who will be assigned the average shared residual cost; is that correct? 20 21 Α. Could you repeat your question from the 22 beginning, please. Yes. I understood your previous testimony 23 Q. 24 -- I don't remember who asked you the question, but I 25 understand that you said that the average -- and when

1 you're going to compute the average shared residual 2 cost you create a group of services that is then 3 assigned the responsibility for recovering that cost? We don't create a group of services. 4 Α. 5 You identify a group of services? Q. б Α. You want me to explain to you how it's done 7 for tandem switching? 8 Q. I just want to know what services are in that group? 9 10 Α. As far as tandem switching? Yes. 11 Q. 12 Α. Any services that need tandem switching, and 13 I list a few of them. MTS service, local exchange service, 800 service, Centrex service. 14 15 EAS service? Q. 16 Α. EAS service. 17 ο. And how do you allocate between those who 18 gets the tandem cost? 19 Α. What we do is -- I believe that's on one of 20 your attachments here. Turn the page. It's the third 21 page down which is 5-7. This is the example I took you 22 through earlier. We calculate the costs at a setup 23 cost and per minute of use level. Now, these costs are 24 calculated based upon the investment associated with 25 the costs. There are three different costs, volume

1 sensitive costs, service specific fixed and shared 2 residual costs. The volume sensitive costs represent 3 the costs based upon the objective fill factors and 4 which is pretty close to the capacity of a system. It 5 takes into account very little spare associated with 6 tandem switching. And as you might be aware we can't 7 build switching equipment without spare capacity. So 8 there is some spare capacity and the rest of the spare capacity, that associated with growth, and that 9 10 associated with what I'm going to call modulator spare, and modulator spare is spare, as I talk about in my 11 testimony, modulator spare is spare that is associated 12 13 with equipment sizes that will not exhaust over a 14 particular time period.

So, the shared residual costs represents the costs of that spare capacity. Now, the way we assign it to different services is based upon once we calculate the setup costs and per minute unit of costs, the way we assign to different services is based upon the number of units required for that particular service. As I explained earlier the number of units required in this particular is one. For each call that's switched through a tandem switch you need a unit of setup costs and a unit of per minute of use costs and we assign a unit to both the volume sensitive and

00774

1 to the shared residual costs. 2 Q. Well, I'm not sure that answered my 3 question. Let me ask it in a more simple manner. 4 If --5 I should point out to you, however, that MTS Α. 6 requires two units -- excuse me -- requires more than 7 one unit of tandem switching because there is certain 8 circumstances which MTS must be switched through more 9 than one tandem. 10 Ο. By MTS I assume you mean U S WEST intraLATA toll service? 11 12 Α. Right. Let's just say there's a hundred dollars 13 Ο. 14 worth of residual cost that's going to be assigned for 15 recovery here. Are you testifying that if 20 percent 16 of the tandem usage in the busy hour is U S WEST 17 intraLATA toll that U S WEST intraLATA toll is asked to 18 pay for 20 percent of that cost? 19 Α. Yes. 20 And that's true with each one of those Ο. 21 product categories? 22 Α. Yes. And we base these costs based upon the 23 total use of tandem switching of which MTS is a part 24 of. 25 Q. Well, let's take a look at what's in that

1 residual cost then. Can you tell me what kind of costs 2 -- well, let me just go through some of these and I 3 want your view as to whether these are really properly 4 thought of as an incremental cost as opposed to a 5 common or fully distributed cost. I'm looking at, to 6 begin with, your testimony in what's been marked 7 Exhibit 28, which is BEF-5 attached to your direct 8 testimony. And on page 3 of Exhibit 28, one of the 9 items you list is land and buildings. Am I to 10 understand that land and buildings is one of the 11 residual costs that are included in coming up with an 12 ADSRC cost? 13 Α. There is some land and building cost in our 14 cost studies, yes. 15 So if I had a tandem switch that's in a Ο. 16 building -- let me ask the question differently. Does 17 any U S WEST tandem switch have its own building and its own land that U S WEST doesn't use for any other 18 19 purpose? 20 Α. I don't know.

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21 Q. Would it be normal for a tandem switch to be 22 located in a --

A. They're typically located in major Metroareas in a building with other switches.

25 Q. How do you determine which portion of that

00776

1 land and building to allocate to the tandem switch 2 recovery? 3 Α. We use factors to do that. Why isn't that just part of the overall 4 Q. common cost of the business? 5 6 Α. Because that building would not be sized the 7 way it would be without tandem switching. If we had 8 one less switch there then the building would be sized 9 smaller. 10 Q. Let's look at the next page. There's sales expense. Is that included --11 12 Α. I think I ought to make sure I point out 13 that even though I gave you a list of factors that 14 doesn't mean all of those factors are in every cost study. Sales expense is included in our -- in this 15 16 cost study. In the tandem cost study? 17 ο. 18 Α. Yes. 19 Q. What kind of sales expense is there for a 20 monopoly product? 21 Α. These are expenses associated with 22 contracting with the customer. He serves their purchase pursuant to tariff? 23 Q. 24 Α. Yeah, but we still have to have one to work 25 with the customer to sell the product.

1 I should point out that there's three 2 different sales items here. One is sales tax, one is 3 sales expense and the other one is sales compensation 4 and I'd note in some of the testimony that's come out 5 that there's some confusion about those three factors. 6 Sales tax is just that, sales tax. Sales expense is, I 7 just explained, sales compensation is whenever we have 8 a product where the sales personnel are compensated for 9 making the sale. 10 Ο. Is there sales compensation expense in the tandem residual cost? 11 12 No, no. Sales compensation, by the way, Α. 13 would always be a volume-sensitive cost. Well, let's take a look then at C-64 which 14 Q. is your original version, January '95 version of the 15 16 switched access cost study. On page 16 I believe you 17 also list the types of costs that are included in the residual cost in the first paragraph on that page? 18 19 Α. I should point out that if you turn back to starting on page 1-4 --20 21 JUDGE ANDERL: I'm sorry, is there a 22 question? 23 MR. MUTSCHELKNAUS: I was trying to get him 24 to --25 Are you there? Q.

1 A. Yes.

2 One of the items on there that's listed, as Q. I understand it, as one of the items that's included in 3 4 residual cost is the assignable and common administration expense. Do you see that? 5 6 Α. Right. 7 Ο. Can you explain what that is in the context of tandem switching? 8 These are the costs of customer accounting, 9 Α. 10 customer accounting also includes computers, any buildings associated with that. 11 12 Again, that strikes me as something that's Q.

13 part of the general administration and joint common 14 cost of the business. How do you isolate that and 15 assign it to one particular market subsegment, if you 16 will?

A. Very difficultly. One of the things we know about our customer accounting expenses is that it does vary with the number of customers that we have. It also varies with the amount of billing that we have, and we have chosen to include it in the shared residual cost because we know it varies that way. However, if you look at our accounting systems, there is really no way that we can go in and identify what piece, parts of that are particular for this particular service, so we

use a factor based upon other expenses to assign it and
 calculate it for tandem switching.
 Q. Don't you think it's rather arbitrary to

4 allocate costs that you've now admitted are difficult 5 to allocate like land and buildings and common 6 administration expenses to one particular subcategory 7 for a product?

8 A. I missed the first part of your question.
9 Q. Don't you think that's rather arbitrary?
10 How do we assess the reasonableness of what the company
11 has done?

12 Α. Well, you can assess the reasonableness by 13 taking a look at the process that we use to assign these costs, and I think it is pretty sound process. 14 15 If the company is allowed to assign the Ο. 16 administration expenses to a noncompetitive product 17 virtually at its discretion, how does this Commission determine whether the company is shifting costs between 18 19 competitive and noncomxpetitive lines of business? 20 MR. OWENS: I'm going to object to the form 21 of the question in terms of virtually at its 22 discretion. The company's rates are subject to this process and based on the evidence the Commission will 23 24 presumably make findings as to whether they're fair, 25 just and reasonable.

MR. MUTSCHELKNAUS: And I'm simply asking
 how the company expects the Commission to be able to
 make that determination based on this kind of evidence?
 JUDGE ANDERL: Well, the objection is
 overruled.

6 A. I don't think that was your original 7 question. I think you referred to the fact that we may 8 be shifting these numbers around arbitrarily and I 9 would point out that as I said earlier, I consider the 10 costs group a safe harbor organization. We don't shift 11 costs around arbitrarily and I resent the implication 12 of that.

13 Q. One final area. You have, as I understood 14 it, your ASIC numbers, ASIC cost numbers, are based on 15 objective fill while your residual cost numbers are 16 based on average fill; is that correct?

17 A. Yeah. You will see in our cost studies the18 term average fill. Sometimes you will see the term19 utilization factor.

20 Q. And the target fill -- excuse me, the 21 objective fill is essentially the ideal or the target 22 that you set for the product whereas the average is the 23 reality, the real experience?

A. Well, the average is the real experience.The objective is based upon a capacity concept, in

1 other words, it's divided by the capacity, and we 2 adjust it for some administrative spare for that 3 particular equipment. So when you're using average fill like you 4 Ο. are in determining the residual cost assigned to tandem 5 6 switching, the customer is asked to pay for whatever spare capacity is there; is that right? 7 Α. 8 Yes. 9 And isn't it true that one of the Ο. 10 purposes --11 JUDGE ANDERL: Were you done with your 12 answer? 13 THE WITNESS: I was going to also say that some of the spare capacity that's there is based upon 14 size of equipment that we have to purchase, in other 15 16 words, we call it modulator spare, comes in certain 17 sizes and we have to purchase in that size and that's 18 part of the spare capacity. 19 Q. So --20 Α. In one particular case is a switch 21 processor. 22 Q. In the case of the tandem switch specifically, using that methodology of average fill 23 24 for determining the residual costs assigned, wouldn't 25 it be true then that if the utilization of the tandem

1 switch dropped from, say, 90 percent to 45 percent, as 2 an example, that the amount of residual costs that the 3 customers have to pay would double? I don't think that is a likely scenario. 4 Α. 5 But isn't that the way the math would work, Q. 6 and forget about the numbers, but if the utilization of 7 the tandem switch fell on materially the costs assigned would rise correspondingly? 8 The total costs wouldn't change but the 9 Α. 10 amount that's shown in the shared would change, the volume sensitive costs would still be the same. 11 12 And isn't it one of the purposes -- well, Ο. let me restate that question. Doesn't the very LTR 13 pricing that the company has proposed in this 14 proceeding incent large customers to discontinue use of 15 the tandem in favor of dedicated products? 16 17 Α. I don't know that. Isn't one of the stated purposes of your LTR 18 Ο. 19 filing that -- to encourage customers to use dedicated 20 facilities? 21 Α. I don't know that. 22 Q. If indeed customers were encouraged or incented by your LTR filing to discontinue use of the 23 tandem then those customers of the tandem that have no 24 25 option would have to pick up the cost of the spare

1 capacity, wouldn't they, or the stranded capacity 2 perhaps is a better way to put it? 3 Α. I don't think that's a likely scenario. Isn't that the way the numbers would work? 4 Q. 5 Α. Yes. 6 MR. MUTSCHELKNAUS: I have no further 7 questions. 8 JUDGE ANDERL: Thank you. Ms. Proctor. If 9 somebody could pass a microphone to that table, please. 10 11 CROSS-EXAMINATION 12 BY MS. PROCTOR: Mr. Farrow, on the concept of the group of 13 Q. 14 services, in the example you were just using of a 15 tandem switch, local services use the tandem; is that 16 correct? 17 Α. Yes. And toll services, U S WEST toll services 18 Q. 19 use the tandem? 20 Α. Yes. And switched access service uses the tandem? 21 Q. 22 Α. Yes. 23 So are those services then the product group Q. 24 or product family? 25 Α. Yeah. There's also 800 service also uses

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00785
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1 the tandem. 2 Q. Isn't that a toll service? 3 Yeah. Well, we have a separate service Α. 4 called 800 service. 5 I'm sorry. I guess because I'm an Q. 6 interexchange carrier I think all of those as toll 7 services? Α. It is a toll service, toll-type service. 8 9 ο. Okay. So in WATS, out WATS, that's toll, 10 right? 11 Α. Right. 12 Q. MTS is toll? Α. Yes. But they are listed as separate 13 14 services. But they all use the tandem? 15 Q. 16 Α. They all use the tandem, right. And in local we would have residential and 17 ο. 18 business? 19 Α. Correct. 20 Q. Would the class services be in there? Two the extent that they would use a tandem, 21 Α. 22 yes. Centrex is in there? 23 Q. 24 Α. Yes. 25 Q. Coin phones?

1 Α. Yes. 2 Q. So those are all in the group that share in 3 the residual costs for the tandem? 4 That's correct. Α. 5 Is there any service that U S WEST provides Q. 6 that's not in that group? 7 Yeah. We've got some custom calling Α. 8 features that may not be in that group. We have some 9 -- we offer numerous services that may not be in that 10 group. 11 Q. Dedicated services wouldn't be in that 12 group, right? 13 Α. Beg your pardon? Dedicated services, private line? 14 Q. 15 A. Private line is one, yes. So we have -- so we have virtually all of 16 Q. 17 the switched services are in the group, though? All of the switched services would have a 18 Α. 19 probability of using a tandem switch, yes. 20 ο. So they would all share in this residual cost allocation then? 21 22 Α. Yes. 23 Q. All the switched services? 24 Α. Yes. 25 Q. Then how do you distinguish what's left to

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1 be common? 2 Α. What's left to be common costs? 3 Q. Yeah. Right. Me. The president of our company, 4 Α. the lawyers sitting over here, the computer, the 5 6 buildings that support them. 7 Ο. One question yesterday from Mr. Farrow's testimony in the updated switched access cost study, 8 9 which I believe you've indicated that which 10 Mr. Mutschelknaus has previously marked is only an excerpt from that study? 11 12 Α. Yes. The version I guess that is in some places I 13 ο. 14 guess as indicated as April 1995? 15 Α. Yes. And I don't believe I heard your response. 16 Q. 17 Mr. Mutschelknaus asked you if there were a later 18 version than April of 1995. Is there? 19 Α. I didn't hear him ask that but there is no 20 later version than April of 1995. For the switched access? 21 Ο. 22 Α. For the switched access local interconnection study. 23 Yesterday -- and on the front of this it 24 Ο. 25 indicate Washington. Is that supposed to indicate to

1 those of us who are not familiar with this study that 2 this is a cost study specific to the state of 3 Washington? 4 Α. Yes. 5 And is that just for costs in the intrastate Q. 6 jurisdiction? 7 This is an intrastate study, yes. Α. The portion of the study that's that section 8 Q. 9 12, IXC measurement holding expenses, and section 13, 10 the HP measurement expenses that Mr. Butler addressed 11 your attention to earlier, are they both 14-state 12 studies? JUDGE ANDERL: Are you referring to Exhibit 13 14 C-66? 15 MS. PROCTOR: No, I'm not. I'm referring to 16 the entire study which the witness I thought was using 17 earlier. No. I was using C-66. 18 Α. 19 Q. I'm sorry. Do you have that available to 20 you? 21 Α. Oh, yeah. And your question is whether or 22 not the IXC measurement study is a U S WEST wide study? 23 Q. Yes. 24 Α. There are certain components of it which may 25 be U S WEST wide, yes.

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00789
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1 Q. And is your answer the same for the HP 2 measurement study? 3 Α. Yes, that's correct. And how is one to tell what's U S WEST wide 4 Ο. 5 and what's state-specific? б Α. You would have to look in the study for 7 interexchange carrier measurement and for HP 8 measurement. 9 What I have in front of me and what you have Ο. 10 in front of you -- I have for the measurement total 11 cost study four pages, 12-1 to 12-4. Is that the 12 entire study? 13 Α. You're talking about section 13? No, I'm sorry. I'm talking about section 14 Q. 15 12? Yes, okay. 16 Α. 17 Q. Is that the entire study? 18 A. That is the executive summary to the study 19 if you're looking at the same thing that I have in 20 front of me. 21 ο. So the study is something greater than this 22 four pages? Yes. There should be -- there are also 23 Α. 24 working papers associated with the measurement 25 total cost study.

On page 12-3, there's a list of the 14 1 Q. 2 states, Washington is obviously second from the bottom 3 -- not in importance of course. Listed in aphabetical order. I think in the 4 Α. future we'll list them in resource aphabetical order 5 6 and just forget about Wyoming. 7 Q. Well, you've sold a good portion of Wyoming 8 anyway. 9 MS. PROCTOR: Mr. Mutschelknaus, can you 10 help me out here? I know there's an exhibit that shows 11 summary of the '95 cost estimates. Is that 64? 12 MR. MUTSCHELKNAUS: It's C-66, the final 13 page is I think what you're looking for, Ms. Proctor. Could you turn to Exhibit C-66, please, Mr. 14 Q. Farrow. 15 I have it. 16 Α. 17 Ο. And the number -- and again, obviously this 18 is a confidential exhibit. The number that appears in 19 the full cost study for Washington does not appear to 20 be the same number that appears under IXC measurement 21 as the ADSRC cost. Is it supposed to be? 22 Α. Could you show me what you're referring to? (Indicating). 23 Q. 24 (Discussion off the record.) 25 Α. They are different, by --

I don't want you to disclose the numbers. I 1 Q. 2 just wanted to know whether the number that appears on 3 the 4-27 spreadsheet under IXC measurement should be this number that appears in the full cost study? 4 5 I believe it should be. Α. 6 Q. The spreadsheet is in Exhibit C-66? 7 JUDGE ANDERL: It's the last page? MS. PROCTOR: Yes. 8 9 So that would -- we should change that IXC Q. 10 measurement number and then the calculation would just --11 12 Α. I just need to make -- I don't think we 13 change it, okay? I think we verify which one is most up to date number before we make any changes at this 14 point in time. We're talking about a number that's 15 16 down in one, two, three, four, five, six, the sixth 17 decimal place of these numbers, so it's not going to be a very significant difference in the total costs of 18 19 local switching. It's less. 20 Do you know how many billion minutes U S Ο. 21 WEST switches? 22 JUDGE ANDERL: Well, perhaps we could just find a way to get the correct number on the record. 23 24 MS. PROCTOR: Yes. 25 Q. I was going to ask if you would verify which

1 is the correct number and just record requisition for 2 the correct number? 3 MS. WEISKE: Could we always receive copies 4 of these record requisitions that have been made 5 throughout today and yesterday? б JUDGE ANDERL: Have you made the company 7 aware of your desire? 8 MS. WEISKE: I just did now on the record. 9 MR. SHAW: We can't hear her at all. 10 JUDGE ANDERL: I didn't think so. That's 11 MCI would like to receive copies of all of the record 12 requisitions that have been made thus far, the 13 responses to them, the one that was just made by AT&T 14 is record requisition No. 18 and that is a verification 15 of the proper IXC measurement ADSRC. Is that correct? 16 (Record Requisition 18.) MS. PROCTOR: Yes. Your Honor, we would 17 18 also make the same request. 19 MR. OWENS: Who was that? JUDGE ANDERL: Ms. Proctor, who would also 20 21 like to be copied on all of those responses. Ms. 22 Proctor, maybe I'm just tired but it seems as though 23 the questions that we're going through here and also 24 the ones from Mr. Mutschelknaus with all of the 25 references to all of the various cost exhibits and

1 whatever, it's getting kind of painstaking it seems.

2 MS. PROCTOR: I wasn't going to do any more 3 of it.

JUDGE ANDERL: I was going to ask you if you
had a bunch more if there was a way to speed it up.
MS. PROCTOR: I wasn't going to do any more
of it.

8 Q. I just had one question on the studies. To 9 the extent that you do them as U S WEST wide, how do 10 you then decide on what are the shared costs that are 11 being allocated? They're not being shared across the 12 states, are they?

13 A. Some of the costs may involve some central 14 computer system, which is assigned to each location on 15 a proportion at amount in a proportion at manner, but 16 there are also some equipment that's located in each 17 one of the states that is only assigned to that 18 particular state.

19 Q. So the example you used of yourself, that's 20 common costs. That would not be in the shared 21 residual, right?

A. No, that is not in the shared residual cost.
Q. But other costs might be shared amongst
Washington, Oregon, Montana, whatever?
A. There could be some costs in there, yes.

1 Q. And how does one reviewing that know where 2 those costs come from? 3 Α. You would have to look at the -- I need to 4 correct myself. I don't know that there's Oregon costs 5 in the shared residual costs. But you would really 6 have to look at the studies that were done to create 7 the factors that calculated those factors. MS. PROCTOR: Thank you, nothing more. 8 9 JUDGE ANDERL: Thank you. Ms. Weiske. 10 11 CROSS-EXAMINATION 12 BY MS. WEISKE: Page 4 of your testimony, your rebuttal 13 Ο. 14 testimony. 15 JUDGE ANDERL: Ms. Weiske, you need to pull 16 the microphone closer. It's actually page 5. You refer to an 17 ο. 18 MCI --19 Α. Can you hold one second and let me clear up 20 some of this paper. 21 Q. You can put away your cost studies. I'm not 22 going to ask you about them. 23 Α. All right. 24 ο. You refer there to an MCI building blocks 25 theory and application report?

1 Α. Yes. 2 Q. And you quote from it? 3 Α. Yes. I assume that means you're generally 4 Q. familiar with that report? 5 б Α. I have read through the report, yes. 7 Where in that report does it state that the Ο. group volume insensitive costs or the economic overhead 8 costs should be added in a formulaic fashion? 9 10 Α. It does not. 11 Q. And if I understood earlier today some 12 testimony you gave you said that the ASIC is the price 13 floor for the recovery of direct service costs; is that 14 correct? 15 Α. Yes. And I thought you said earlier to Mr. Smith, 16 Q. 17 despite your answers later in the day about being a 18 safe harbor, that you believe that a product manager 19 could price differently depending if the product was a 20 competitive service versus a service that was not 21 competitive. Am I misrecalling that earlier 22 conversation? You were talking to him in relationship 23 initially to Centrex services? 24 Α. I am not quite with you in this particular 25 case.

1	Q.	Well, if the market for a service is
2	competitiv	re, do you have a position on whether that
3	needs to b	pe priced below ADSRC or not?
4	Α.	If it's a competitive service?
5	Q.	Uh-huh.
6	Α.	Whether or not it can be priced below ADSRC?
7	Q.	Yes. But above ASIC.
8	Α.	Yes. If the market price is below ADSRC, as
9	I said earlier it would still leave the obligation to	
10	the product manager that they still have to recover	
11	those group-related shared costs.	
12	Q.	If the market for a service is less
13	competitive or not competitive then is it your position	
14	that the appropriate pricing for that service should be	
15	above ADSRC?	
16	Α.	Yes.
17	Q.	But if it's competitive you believe it's
18	potentially appropriate for that pricing to be below	
19	ADSRC but above ASIC?	
20	Α.	Yes.
21		MS. WEISKE: That's all I have. Thank you.
22		JUDGE ANDERL: Thank you. Mr. Ganton.
23		MR. GANTON: No questions, Your Honor.
24		JUDGE ANDERL: Anyone else from the
25	intervenors?	

00797 1 MS. LEHTONEN: I just have one. 2 JUDGE ANDERL: Ms. Lehtonen. 3 4 CROSS-EXAMINATION 5 BY MS. LEHTONEN: 6 Q. Good afternoon, Mr. Farrow. 7 Α. Hi. There's been a lot of discussion --8 Q. 9 I didn't catch your name, by the way. Α. 10 Ο. Ms. Lehtonen. There's been a lot of 11 discussion here today regarding the various elements 12 included in shared residual costs for the transport 13 rates for DS1, 3 and pin switch transport and I was 14 just wondering if U S WEST would be willing to provide an explicit description and a cost-by-cost element 15 16 included in the shared residual costs for these 17 transport rate elements tandem switch transport DS1 and 18 DS3 direct trunk? 19 Α. When you say a detailed are you talking 20 about the different factors that we use and the amount 21 was calculated, associated with those factors? 22 Q. Yes, basically. And the breakdown of the shared residual 23 Α. 24 versus, I think that information should be provided in 25 the cost study in the backup material.

Well, subject to check. I guess when we 1 Q. 2 were going through these examples in 3 Mr. Mutschelknaus's cross-examination there was a 4 listing of the different shared residual costs and some 5 of them you said applied for some of the transport 6 elements, some of them didn't. Are those broken up in 7 the cost studies that we've been provided? Yes. Cost studies should tell you which 8 Α. 9 network functional component are used for each one of 10 the services, and if not -- and I'm sure it's there --11 we would be willing to provide that information. 12 Q. Okay. Thank you. We'll check on it and get 13 back. 14 JUDGE ANDERL: Is that it? 15 MS. LEHTONEN: Yes. JUDGE ANDERL: Anyone else from the 16 17 intervenors? Mr. Trotter, any questions? 18 19 MR. TROTTER: Yes, thank you. 20 21 CROSS-EXAMINATION 22 BY MR. TROTTER: Mr. Farrow, the reason that U S WEST 23 Q. 24 installs access tandem switches is to facilitate the 25 switching and transport of toll calling both its own

2 interchange carriers; is that right? 3 Α. That's correct. That's why it's called an access tandem, it 4 Ο. has the word access? 5 6 Α. It's called tandem, yes. 7 Ο. Now, on the top of page 5 of your rebuttal testimony you indicate that basic exchange services use 8 the tandem for 8.37 percent of local calls. This would 9 10 be a situation where we're not talking about toll calling here but local calling; is that right? 11 12 Α. That's right. 13 Ο. And so it just so happens that if a person is making a local call it's possible that it might 14 actually be using the access tandem switch for that 15 local call? 17 Α. Might be using the tandem switch, yes. 18 With respect to the terminal loop order Q. 19 which -- was it your testimony in response to staff 20 counsel that you were not relying or following the 21 Commission's order in that case on the basis, as you 22 understood it, that order had been vacated? 23 Yes. That was my understanding, yes. Α. 24 Are you aware of any U S WEST witness in Ο. 25 this or any other docket that is relying on that order

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1 toll calling and the interexchange traffic of

00800 1 for any purpose? 2 Α. The --3 Q. The term "loop order." No, I'm not. 4 Α. 5 Have you read the testimony in the general Q. 6 rate case of all witnesses? 7 Yes, I have. I don't remember the Α. 8 statement. 9 Would you turn to your Exhibit C-44, please. Ο. 10 BEF-1. The first page of this -- and these are both confidential -- are the results of your cost study. 11 12 The first page for the flat residence rate is based on 13 the existing three rate groups; is that right? 14 Α. Yes. And the next page is based on your proposed 15 Q. 16 zone concept in the general rate case; is that right? 17 Α. That's correct. And you did not provide the underlying 18 Q. 19 studies in this docket, did you, rather they were 20 provided in the general rate case docket; is that 21 right? 22 Α. That's correct. 23 And in neither study or either page of this Q. 24 exhibit did you -- did your studies use stationary 25 wireless technology; is that right?

No, it did not. 1 Α. 2 And just looking at the ASIC column for Q. 3 either page or for both pages, let's say, you assign 4 100 percent of the loop cost to the residential 5 service, 1FR service in your study, do you not? б Α. Yes. The residential service does include a 7 loop, and it is included in the costs for residential 8 QF service. And it's 100 percent of the loop cost that's 9 Ο. 10 included? It's 100 percent of the loop cost for 11 Α. residential customer, yes. 12 13 Ο. And you assign none of that cost to toll service or vertical services such as call waiting, call 14 forwarding or voice mail; is that right? 15 16 Α. No, we do not. 17 ο. And all of those services use the loop in order to complete a toll call or to facilitate call 18 19 waiting, call forwarding or voice mail; is that right? 20 Α. Those services, the customer has to have a loop to get access to some of those services, yes, but 21 22 the customer does not have to use those services. If I want to use call waiting, can I use it 23 Q. without using the loop? 24 25 I'm sorry, did you ask me a question? Α.

1 Q. Your voice dropped. 2 THE WITNESS: You were overhearing someone 3 over here. Let me ask it again. In order for call 4 0. waiting -- call waiting service to work it requires use 5 6 of the loop, does it not? 7 The service works without the loop but in Α. 8 order for the customer to get the call waiting signal 9 they have to be on the phone and have to have that 10 loop, yes. 11 And it's also possible for a residential Q. 12 customer to subscribe to residential service and use it 13 only for toll call, isn't it? Are you saying is it possible for 14 Α. 15 residential service not to make any local calls? 16 Q. Yes. 17 Α. Yes. Q. And instead use it for toll call only? 18 19 Α. Use it for toll call only and we do charge 20 them for the local calling, however. Rate element 21 includes local calling as well as the local loop 22 associated with that. And finally with respect to your cost 23 Q. studies. Like you to take a representation from me 24 25 that there was a recent case before this Commission

1 involving a natural gas utility in which under 2 protective order their cost study for cost of service 3 purposes was provided to the parties and parties could 4 put in their own inputs through the cost inputs, rate 5 of return inputs, depreciation inputs and so on, and 6 run that study. Based on that representation, that's 7 not what happened in this proceeding, is it? 8 Α. When you say the parties, are you talking about all the parties associated with this particular 9 10 case were able to put in their own numbers and run the 11 studies? 12 Ο. That's correct. 13 Α. No, that is not what happened. However, we

14 did for the staff. They provided us with some 15 assumptions and we did rerun some costs based upon 16 those assumptions.

Q. And if a particular party wanted to, for example, say, just simply -- shouldn't say the word simply -- if a party asked just to change the cost of capital you're the one that's going to have to run that study to get the results; is that correct?

22 A. That's correct.

23 Q. That's not a simple task, is it, the way 24 your model is constructed to change the cost of capital 25 input?

1 A. No, it's not a simple task because, as I 2 said before, we use factors in our cost study. Those 3 factors are based upon the cost of money. And we would 4 have to rerun each one of those factors before we could 5 do our cost studies. 6 MR. TROTTER: Nothing further. Thank you. 7 JUDGE ANDERL: Thank, Mr. Trotter. Are 8 there questions for this witness from the 9 Commissioners? 10 COMMISSIONER HEMSTAD: No. CHAIRMAN NELSON: Pass. 11 12 COMMISSIONER GILLIS: I have a couple of 13 real brief ones. 14 15 EXAMINATION 16 BY COMMISSIONER GILLIS: 17 Ο. On your direct testimony, page 9 line 17 it 18 says, "As long as the competitive marketplace will 19 allow a price that is above ADSRC it is in the best 20 interests of U S WEST and its ratepayers to price above 21 ADSRC." I can follow why it's in the best interests of 22 U S WEST. Can you help me why it's in the best 23 interests of the ratepayers to price above ADSRC? 24 Α. If a service is a price above ADSRC it will 25 help recover some of the common costs of the

1 corporation. By recovering the common costs I think 2 we're still rate of return regulated, I should say 3 residually price the amount of -- the amount that it 4 would be charged to a residential customer would be 5 less, so more services are priced above that level 6 would recover more common costs. 7 Ο. So you're assuming those costs would be 8 passed through the ratepayers, the recovery of those common costs, is that what you're saying? 9 10 Α. I'm saying the more services that are priced above ADSRC the better chance we have of recovering 11 12 those common costs is in the best interests of I think 13 everybody that we recover those costs, those common 14 costs. 15 Just one other question. This is more a 0. 16 clarification. As I understand your testimony is that 17 pricing at ADSRC removes the possibility of a cross subsidy within a family of services; is that right? 18 19 Α. Yes. 20 Does it also remove the possibility of cross Ο. 21 subsidy among families, between two different families 22 of services? As long as the other services are priced 23 Α. 24 above their ADSRC. 25 Q. So if all service families are priced above

1 ADSRC then there wouldn't be any cross subsidies 2 between families either? 3 Α. Yes. You know, I brought an example with 4 me. 5 COMMISSIONER GILLIS: That's all. JUDGE ANDERL: Thank you. 6 7 Is there redirect for this witness and does 8 it include the example? 9 MR. OWENS: Yes, Your Honor, and yes, Your 10 Honor. 11 12 REDIRECT EXAMINATION 13 BY MR. OWENS: Mr. Farrow, do you have some charts that 14 Q. 15 might help illustrate the relationships between the 16 various cost elements that have been discussed in 17 cross-examination with you? 18 Α. Yes, I do. 19 Q. Would you like to put them up and explain 20 what they are, please. Yes, I will. I would love to do it. 21 Α. 22 JUDGE ANDERL: Mr. Owens, I will give you 23 and your witness all the time you need to have a fair 24 redirect but let's see if we can make it less than 10 25 or 15 minutes.

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A. What I would like to do --

JUDGE ANDERL: Just so the record is clear, we have an easel and chart being put up. Mr. Farrow, let me just remind you that because all we have is a written record of this, if you make references to the chart you have to specifically identify what you're talking about rather than just saying "over here" or something like that.

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THE WITNESS: I will do that.

10 Α. What I would like to do is just take you through the different costs and the definition first 11 12 and then I would like to take you through an example, 13 so I will do this part very quickly since based upon some of the questions I've gotten so far it seems like 14 there appears to be kind of a general understanding of 15 16 the different terminology that we use in our cost study 17 support.

So this particular example shows total costs and it also shows four different products. Product A, B, C and D, and these costs are in millions. So what I've done is I've shown the volume sensitive costs, the volume sensitive costs we've talked about those. And those are 10 million for A, 5 million for B, 15 million for C and 25 million for D just to give an example. I also have some service specific fixed

1 costs which we said were volume insensitive costs
2 associated specifically with the service, and I have
3 costs for each one of those. I've totaled those costs
4 to get a total service incremental cost. These are the
5 total service costs for A, B, C and D. And that's 12
6 for A, 6 for B, 18 for C and 30 million for D. So,
7 those are the total costs of the service.

8 We also have some shared costs and those costs mainly what I've talked about already there's a 9 10 lot of spare capacity in these costs, okay? U S WEST cannot build networks without spare capacity and most 11 of it is down in here. What I've tried to show you is 12 13 how these overlap, okay, between different services. You could have some that overlap between A and B. You 14 could have some overlap between C and D and costs that 15 16 overlap between B and C. There could be some that 17 overlap between A, B and C and B, C and D. You might have some which I haven't shown here, between A and D. 18 19 The whole purpose is there are some costs that overlap. 20 When we do this we could start right here. 21 Those are total costs and tell our product managers to 22 manage at this point, and we've got some shared 23 residual costs as well, tell them just to manage this. 24 You have to recover this, even though your product is A 25 you got to work with B to recover that 4 million, even

though your product is A you got to work with B and C
 to recover this 6 million. It could stop there but we
 don't.

By the way down here at the bottom I show you the common costs just to show you those costs are different than the shared residual costs, we already talked about that. These costs have to be recovered also.

Let me next show you the unit costs. 9 We 10 don't think providing total costs to our product 11 manager is correct from a practical manner to manage 12 their products and services, so we do -- show the 13 cost's unit level, and that's some of the terminology 14 you've heard today, average volume sensitive costs, average service specific fixed costs, average service 15 16 incremental costs. And basically what I've done here, 17 I've made an assumption that there's 10 million units 18 to be sold for each one of them just to simplify it, 19 and I've gone through and I've divided by 10 million to 20 come up with a unit cost. I've added the average 21 volume sensitive costs together with the average 22 service specific fixed costs to get an average service 23 incremental cost. This is the price for the service 24 that they can't price below. Product managers can't 25 price below.

1 JUDGE ANDERL: Just so this is clear, this 2 is on a second sheet of paper, and Mr. Farrow these 3 unit costs correspond to the total costs that were 4 shown on the first sheet.

5 THE WITNESS: Yes.

б JUDGE ANDERL: Assuming 10 million units. 7 THE WITNESS: Assuming, but I could stop 8 there, product managers, there is the unit cost and there's some total shared residual costs overlapping 9 10 different product lines and what have you, and give them these numbers to work with in this manner, but we 11 prefer from a practical manner to provide our product 12 13 managers with unit costs. So what I've done is I've 14 taken the units associated with this grouping here and units, there are 20 million and I've taken that -- the 15 16 \$4 million associated with that and divided it by that 17 20, that 20 million to come up with 20 cents per unit 18 for the 20 million units. And I've done that in each 19 one of these cases here under average shared residual 20 costs.

And then what I've done is I've added these costs up in the columns to come up with the average direct and shared residual costs. Average direct and shared residual costs includes the direct costs of average service incremental costs and the shared costs

00810

1 of average shared residual costs. To demonstrate that 2 in product A I have \$1.20. Let's start at this point. 3 Let's start at \$1.20 for the ASIC and add 20 cents for 4 the average shared residual costs and 20 cents for this 5 other group of average shared residual costs, and my 6 total is \$1.60. Now I've done that with each one of 7 the columns.

8 And this is the number that we ask our 9 product managers to manage around. The average direct 10 and shared residual costs. We also tell them you've 11 got those common costs down there. You got to recover 12 those common costs as well. So how do they use this 13 information?

14 Q. I think we can move on to another question?15 A. Okay.

16 Q. Mr. Farrow?

17 A. You got me on a roll.

Q. Commissioner Gillis asked you whether or not in your statement that it was to the ratepayer's benefit to -- a situation where it was possible to price above ADSRC why that was the case, and he asked you whether other things being equal if the company was unable to do that some of those shared costs would be collected from other ratepayers. Do you recall that? A. Yes, I remember that.

00811

Q. And as long as the company is rate of return
 regulated, is that the case in your understanding that
 those costs would be --

A. I think I got that switched around. I think what happens is I think a rate is set for -- and I'm sorry about that -- rate is set for a local service and then it is residually priced to other services is what is correct there.

9 Q. So in the situation where the company is 10 unable to collect its shared residual costs from one 11 group of ratepayers as long as its rate of return 12 regulated will it pass those costs on to some other 13 group of ratepayers?

14 A. Yes, it would.

15 Q. Do you know what percentage of the cost of a 16 residence line is a shared residual cost?

17 A. I think it's -- statewide it's about 2018 percent.

19 Q. If residence rates do not allow the company 20 to recover the shared residual costs attributable to 21 residence line, how much annual costs needs to be 22 recovered by other services?

A. In total?

24 Q. Yes.

25 A. Well, roughly calculating I would -- you're

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1 talking about just a shared residual portion?

2 Q. Yes.

3 A. Roughly calculating I would make it over4 \$200 million.

5 Q. When you refer in your testimony to product 6 family costs, are those costs associated with 7 technology such as central office switches and 8 interoffice facilities?

9 A. Yes, there are. There are technologies 10 costs associated -- included in that, excuse me.

11 Q. Does the cost associated with completing a 12 local call include costs that would be categorized as 13 shared residual costs?

14 A. Yes.

Q. You were asked a question by public counsel about the way you calculated the incremental cost for residence service. Do you recall those questions?

18 A. Yes.

19 Q. And he indicated -- and you agreed that you 20 had calculated the full cost of the residence line as 21 being attributable to the customer; is that correct?

22 A. Yes.

23 Q. Can you provide service to a customer using24 half of a loop?

25 A. No, we cannot.

1 Q. You were asked some questions by counsel for 2 the staff about your use of something other than the 3 company's authorized rate of return for the cost of 4 money. Why did you use the cost of money that you used from an economic standpoint? 5 б Α. Well, we did a forward looking study and we 7 did ask our task group to come up with a cost of money based upon what it would cost us for debt and equity in 8 the future, and it's based upon that. 9 10 Ο. Why did you use the fill that you used? In our cost studies? 11 Α. 12 Yes. Q. 13 Α. We use fill -- your question why did we use a fill, you're talking about a particular type of fill? 14 Well, Counsel asked you whether in certain 15 Q. 16 instances you used average fill rather than objective 17 fill? No, we use both fill in our cost studies. 18 Α. 19 Q. In the cases where you used average fill why did you use it? 20 21 Α. We use it in order to identify what the 22 spare capacity was associated with the investment. And is that spare capacity something that is 23 Q. unavoidable in the process of building and operating a 24

00814

25 network?

1 A. It is completely unavoidable. We cannot 2 operate on network without some spare capacity: Cannot 3 provide customer service on demand without spare 4 capacity. Virtually impossible to place a line out to 5 one's residence on demand unless the capacity is 6 already there.

Q. Counsel for the staff also asked you ifthere were any services of which you are aware thatwere currently priced ADSRC. Do you recall that?

10 A. Oh, yes.

11 Q. You answered Centrex. Was that an 12 exhaustive answer?

A. No, it wasn't an exhaustive answer. I was
leading into an example that I was going to show here a
little bit later that I didn't get to show, but there's
also 1FR service as well as DA priced below ADSRC.
There are also, by the way -- 1FR is also priced below
its ASIC level as well.

19 Q. Counsel for Electric Lightwave asked you 20 about the relative base that Electric Lightwave would 21 have to spread a measurement cost over assuming that if 22 you engage in measuring the traffic that it would 23 exchange with U S WEST. Do you recall that type 24 question?

25 A. Yes.

1 Q. Is it ordinary or usual for a business in a 2 start-up mode to to have start-up costs that are higher 3 on a unit basis than it has later when it has a larger customer base? 4 5 Α. Yes. 6 Q. And that would apply to the cost of buying a switch if you're going to be in the telephone business? 7 Α. 8 Yes. 9 And would it apply to the cost of billing Ο. 10 and collecting charges from your customers? 11 Α. Yes. 12 Ο. You were asked some questions about IAC 13 about allocation of items like land and building and assignable and common administrative expense. Do you 14 recall those questions? 15 16 Α. Yes. 17 Ο. Does the company allocate 100 percent of 18 these costs to the tandem switching elements that you 19 were being asked about? 20 Α. No, we do not. We only assign to those --21 calculate a proportionate share for tandem switching. 22 Q. You were asked by counsel for MCI whether it was potential -- a potential that you would have a 23 24 situation in a competitive market where you would price 25 below ADSRC but above ASIC. Do you recall that?

00816

1 A. Yes.

2 What is your position on whether -- to the Q. 3 extent possible even in a competitive situation you 4 would attempt to price above ADSRC? 5 MR. TROTTER: Your Honor, object to the 6 question. I think this witness has stated he doesn't 7 deal about with competitive issues. He was very adamant about that. 8 JUDGE ANDERL: Rephrase or -- I would 9 10 sustain that objection. You've indicated in your prior testimony, 11 Q. Mr. Farrow, that you made recommendations on the 12 recovery of shared residual cost. Is that correct? 13 14 Α. Yes. Would your recommendation -- or what would 15 Q. 16 your recommendation be with regard to whether the 17 company should attempt, to the extent possible, to 18 recover shared residual costs by pricing above ADSRC 19 even in a competitive situation? 20 Α. I think it's imperative that we price our 21 services to recover not only our direct costs but our 22 shared costs as well, and the mechanism for doing that 23 is to price above ADSRC. 24 In the long run, if the company could not Ο. 25 recover its common costs due to competition, would it

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1 be able to continue in business? Α. No. Q. You were asked a question by public counsel 4 about whether access tandems were installed to 5 facilitate toll calling. Do you recall that? Α. Yes. 0. Is there any other purpose for a tandem 8 switch as distinguished from a purely access tandem 9 switch? Α. Tandem switching is used for local as well 11 as switch access, MTS, in WATS service. It's used for 12 many different services. Primary purpose of it is to 13 facilitate transport between one office and another 14 office. 0. Would extended area service use that kind of 16 a facility? Α. Yes. It's possible. You were asked by public counsel whether it Q. 19 was possible for a residence customer to make only toll 20 calls. Even if such a customer only made outgoing toll 21 calls, would it be possible for that customer to 22 receive incoming local calls? Yes. They would receive incoming local Α. 24 calls. MR. OWENS: Thank you, that's all the

1 redirect I have. 2 JUDGE ANDERL: Mr. Smith, do you have 3 recross. 4 MR. SMITH: No. 5 JUDGE ANDERL: Why don't we take a show of 6 hands as to who might have recross. 7 Mr. Trotter. 8 MR. TROTTER: Just one question. 9 10 RECROSS-EXAMINATION 11 BY MR. TROTTER: With regard to providing local service -- or 12 Q. 13 the inability to provide local service using one half a 14 loop, do you recall that question from your counsel? 15 Α. Yes. Q. You can't provide call waiting or toll 16 17 services if the customer has half a loop either, can 18 you? 19 A. That's correct. 20 MR. TROTTER: Thank you. JUDGE ANDERL: Mr. Mutschelknaus. 21 22 RECROSS-EXAMINATION 23 24 BY MR. MUTSCHELKNAUS: 25 Q. One question. You stated on redirect that

1 -- let me back track. Mr. Owens referred to the fact
2 that -- do it without a microphone but I will speak
3 loudly. Mr. Owens referred to the fact or asked you
4 whether in the case of, for example, land and buildings
5 and tandem switch whether all of it was allocated to
6 the tandem switch and I believe you just testified, no,
7 the building would be allocated to different products;
8 isn't that right?

9 A. Yes, that's correct.

10 Q. And let's use again the example of the 11 tandem. In the tandem transmission charge, when you 12 buy tandem service you have both the tandem 13 transmission charge and a tandem switching charge; 14 isn't that right?

15 A. That's correct.

16 Q. And you have to buy them both. You can't 17 buy them separately?

18 A. That is my understanding.

19 Q. And if there is a building serving a tandem 20 switch, is the building cost allocated to the residual 21 in both the tandem transmission and the tandem 22 switching charge?

A. Yes. If there are channel terminations in
that building there should be some building costs
associated with it.

1 Q. Doesn't that amount to a double recovery of 2 that cost by the --3 Α. No, it does not. Why is that? 4 Ο. 5 Because they occupy different space. It's Α. 6 only recovering the space that it occupies, the cost of 7 the space that it occupies. Doesn't the dedicated user pays only once 8 Q. for that cost but the tandem user pays twice; isn't 9 10 that right? 11 Α. I don't understand your logic. I mean, if 12 you've got two -- if you've got two channel 13 terminations in that building and you've got some 14 equipment that that channel termination fits in, that channel terminating equipment has some investment so 15 16 floor space investment associated with it. The tandem 17 switch has some floor space investment associated with 18 it. It's not double recovery. 19 MR. MUTSCHELKNAUS: That's fine. No further 20 questions. 21 JUDGE ANDERL: Anything else for this 22 witness? 23 COMMISSIONER HEMSTAD: I would just ask the 24 question, would it be helpful to have those two 25 diagrams reduced in size and admitted as exhibits for

1 illustrative purposes?

MR. OWENS: We would be happy to do that,
 Mr. Commissioner.
 JUDGE ANDERL: I will assign that Exhibit

5 No. 72 and 73 and they will be admitted on receipt.
6 (Marked and Admitted Exhibits 72 and 73.)
7 MR. OWENS: Thank you, Your Honor. Thank
8 you, Commissioner Hemstad.

9 JUDGE ANDERL: Thank you, Mr. Farrow, for 10 your testimony. You may step down. Let's be off the 11 record for a few minutes and we'll discuss how we're 12 going to proceed.

13 (Recess.)

JUDGE ANDERL: Let's be back on the record. While we were off the record Mr. Purkey took the witness stand. We identified his testimony and exhibits as follows: His rebuttal testimony is Exhibit T-74 for identification. His DP-1 is Exhibit 75 for identification and his confidential DP-2 which consists of four pages is Exhibit C-76 for identification. (Marked Exhibits T-74, 75, C-76.) Whereupon,

DAN PURKEY,having been first duly sworn, was called as a witness

25 herein and was examined and testified as follows:

00823 1 JUDGE ANDERL: Go ahead, Mr. Owens. 2 MR. OWENS: Thank you, Your Honor. 3 4 DIRECT EXAMINATION 5 BY MR. OWENS: б Q. Good evening, Mr. Purkey. 7 Α. Good evening. 8 Q. Please state your name and address for the 9 record? 10 Α. My name is Dan Purkey. Address is 1600 7th 11 Avenue, Room 3002, Seattle, Washington. 12 Q. Are you the same Dan Purkey who has caused 13 to be predesignated in this docket exhibits that have 14 been marked T-74 consisting of your rebuttal testimony, 15 Exhibit 75 and Exhibit C-76? Α. Yes, I am. 16 17 Ο. And have you distributed also an explanation 18 of revisions to C-76 from what was originally 19 predistributed? 20 Α. Yes. 21 Ο. Were these documents prepared by you or 22 under your direction and supervision? 23 Α. Yes. 24 If I were to ask you the questions that are Q. 25 printed on Exhibit T-74 for identification, would your

1 answers be as set forth therein? 2 Α. Yes. 3 MR. OWENS: I would offer T-74, 75 and C-76 4 and I understand we're to take up cross of Mr. Purkey 5 tomorrow and he will be available at that time. JUDGE ANDERL: That's correct. Is there any 6 7 objection to the admission of those identified 8 exhibits? 9 I hear none. Those three exhibits will be 10 admitted as identified and we will be back here at 11 8:30 tomorrow morning to begin with staff's cross. (Admitted Exhibits T-74, 75 and C-76.) 12 13 (Hearing adjourned at 7:00 p.m.) 14 15 16 17 18 19 20 21 22 23 24 25