BEFORE THE WASHINGTON UTILITIES AND

TRANSPORTATION COMMISSION

In the Matter of the Continued Costing and Pricing of Unbundled Network Elements and Transport and Termination.	Docket No. UT-003013 Volume XXV Pages 3024 to 3213

A hearing in the above matter was held on April 5, 2001, at 9:30 a.m., at 1300 South Evergreen Park Drive Southwest, Room 206, Olympia, Washington, before Administrative Law Judge LAWRENCE BERG and Chairwoman MARILYN SHOWALTER and Commissioner RICHARD HEMSTAD and DR. DAVID GABEL.

The parties were present as follows:

COVAD COMMUNICATIONS COMPANY, by MEGAN DOBERNECK, Attorney at Law, 7901 Lowry Boulevard, Denver, Colorado 80230.

THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, by GREGORY J. TRAUTMAN and MARY TENNYSON, Assistant Attorneys General, 1400 South Evergreen Park Drive Southwest, Post Office Box 40128, Olympia, Washington, 98504-0128.

QWEST CORPORATION, by LISA ANDERL, Attorney at Law, 1600 Seventh Avenue, Suite 3206, Seattle, Washington 98191, and by JOHN M. DEVANEY, Attorney at Law, Perkins Coie, LLP, 607 Fourteenth Street Northwest, Washington, D.C. 20005-2011.

VERIZON NORTHWEST, INC., by JENNIFER L. MCCLELLAN and MEREDITH B. MILES and JEFF EDWARDS, Attorneys at Law, Hunton and Williams, 951 East Byrd Street, Richmond, Virginia 23219.

Joan E. Kinn, CCR, RPR
Court Reporter

ELECTRIC LIGHTWAVE INC.; ADVANCED TELECOM GROUP, INC.; AT&T COMMUNICATIONS OF THE PACIFIC NORTHWEST, INC.; MCLEOD USA TELECOMMUNICATIONS SERVICES INC.; FOCAL COMMUNICATIONS CORPORATION OF WASHINGTON; AND XO WASHINGTON, INC.; by GREGORY J. KOPTA, Attorney at Law, Davis, Wright, Tremaine, LLP, 1501 Fourth Avenue, Suite 2600, Seattle, Washington 98101.

WORLDCOM, INC., by ANN HOPFENBECK, Attorney at Law, 707 - 17th Street, Suite 3600, Denver, Colorado 80202.

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P R O C E E D I N G S

JUDGE BERG: This is a continued hearing in Docket Number UT-003013. Today's date is April 5, 2001. At this point in the transcript record, I would like the reporter to enter the exhibit number and description of Exhibits T-1120 through 1124, T-1200 through 1205, and Exhibits T-1210 through 1214 as set out on the exhibit list dated 4/2/01 as if read into the record in their entirety.

(The following exhibits were identified in conjunction with the testimony of WILLIAM E. TAYLOR.)

Exhibit T-1120 is Direct Testimony of Dr. William E. Taylor (WET-T1). Exhibit 1121 is Curriculum Vitae of Dr. William E. Taylor (WET-2). Exhibit T-1122 is Rebuttal Testimony of Dr. William E. Taylor (WET-3T). Exhibit 1123 is Qwest Response to Joint Intervenors DR JI 01-013. Exhibit 1124 is Qwest Response to Joint Intervenors DR JI 01-015.

(The following exhibits were identified in conjunction with the testimony of MARK E. ARGENBRIGHT.)

Exhibit T-1200 is Response Testimony of Mark E. Argenbright (MEA-1T). Exhibit T-1201 is Cross

Response Testimony of Mark E. Argenbright (MEA-2T). Exhibit 1202, C-1202 is WorldCom's Response to Qwest's DR 10. Exhibit 1203 is WorldCom's Response to Qwest's DR 12. Exhibit 1204 is WorldCom's Response to Qwest's DR 14. Exhibit 1205 is WorldCom's Response to Qwest's DR 18.

(The following exhibits were identified in conjunction with the testimony of REX M. KNOWLES.)

Exhibit T-1210 is Part B Response Testimony of Rex Knowles dated 10/23/00. Exhibit 1211 is Verizon & Qwest's Response to DR's (RK-1). Exhibit 1212 is Qwest Marketing Material (RK-2). Exhibit T-1213 is Part B Rebuttal Testimony dated 2/7/01. Exhibit 1214 is Excerpt of Qwest's FCC Access Tariff (Private Line Transp.).

JUDGE BERG: We will be off the record.

(Discussion off the record.)

JUDGE BERG: Ms. Miles, I understand that Verizon is making Mr. Jones available this morning to respond to further questions relating to Exhibit 1183 and C-1183; is that correct?

MS. MILES: That's correct.

JUDGE BERG: Mr. Jones, would you please

stand and raise your right hand.

Whereupon,

HOWARD LEE JONES,

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

JUDGE BERG: All right, thank you, sir. Mr. Kopta.

MR. KOPTA: Thank you, Your Honor.

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

BY MR. KOPTA:

Q. Good morning, Mr. Jones, long time, no see. I wanted to ask you a few questions about the study which is Exhibit C-1183. First, did you participate in the preparation of this study?

A. No, I just basically hired Hewlett Packard to do the study.

Q. You were the individual that hired Hewlett Packard on behalf of Verizon or at that time GTE?

A. Yes.

Q. Would you turn to page two, and before I ask too many questions about this, I wanted to confirm that this is a confidential document, or it's identified as a

confidential document, and am I correct that that's for the numbers, for example, telephone numbers or call minutes and that sort of thing?
A. It's more for the identification of the named customers than anything else. We don't like to, how do you want to put it, make public a whole bunch of information about our customers.
Q. The FCC frowns on that too.
A. Yes, they do.
Q. Okay, well, if I start to tread in areas where I shouldn't, please correct me.
On page two, I'm looking at the third full paragraph on that page, and the first sentence of that paragraph reads:
> The purpose of this study was to measure the call volume, average call holding time, and resource usage by these ISPs which were discussed in the prior two paragraphs.

Do you see where my reference is?
A. Yes, sir.
Q. So as I understand it, the purpose of the study was to measure call volume as opposed to any ratio of inbound to outbound calling?
A. I really don't know where you're

inbound/outbound. This was call volume to ISPs or to other people, so I guess every call effectively has an inbound and an outbound side, so I'm --

Q. No, I, well, I apologize for not being clear. What we were discussing during our prior conversation was the 17 to 1 imbalance of traffic.

A. Yes.

Q. And the extent to which customers are making more calls than they're receiving. So what my question is is that this is, or vice versa, that this study is not intended nor does it demonstrate any kind of pattern in terms of specific customers or customer types in terms of more outbound calls as opposed to inbound calls or vice versa?

A. Basically this study doesn't address ratios or inbound/outbound type numbers. Its purpose is to reflect loads on switches and so forth. So I think that because the inbound/outbound ratios are actually between carriers and not about "customers" per se, although the ratio definitely is an indicator of what type of customers you might have, basically any kind of out of balance condition is indicative of a lot of ISP traffic.

In fact, some of the tables in this exhibit are quite interesting, particularly on page 77. Call duration in the table of percentages underneath that shows the percentage of in effect load that's on the switches that are shown there for the whole 24 hour period of each of those days. It shows ISP as a percentage of total traffic, and it averages somewhere around 45%. There really is no other kind of traffic. And, of course, that is all one way traffic, and this is all ISPs, pure ISPs. There is no other kind of consumer customer in telephony that could generate that kind of volume on the total network.

Q. Well, let's talk about the definition of ISPs in the study, and we're back on page two looking at footnote one, and the footnote states:

> Throughout this document, the term Internet service provider is used to mean data service provider. The term is used to describe a class of public switched telephone network (PSTN) users that provide access to data services such as the Internet. This may also include other more traditional data service providers such as college computer centers that exhibit the same calling patterns and therefore produce the same effects on the PSTN.

Is that the definition of ISP that you are

using in your testimony?
A. Having been involved with this study and having looked at all the other representations in here, while that definition or description, if you will, does include other non-Internet, web surfing, AOL.com things, the actual data itself is all Internet, web surfing, AOL.net, or, you know, DJECs or similar customer sets.
Q. And would you point to me in the study where there is a discrepancy between Internet service providers as you have discussed them and any other type of data provider?
A. On page 8.8, it talks about America on Line as the studied number, and basically in 9.10 or 9-10 it shows America on Line's usage characteristics. So I can inform you that when we did this study, we intentionally, if you want to put it, with intent looked for strictly Internet service providers.
Q. Well, the chart that you showed me demonstrates one of the telephone numbers, but there are multiple telephone numbers that were studied in this particular study, are there not?
A. Yes, sir.
Q. And I don't see any other customers associated with those telephone numbers, do you?
A. I don't believe that, maybe due to CPNI, that

the study actually goes in and identifies each and every ISP that was studied, each and every that is pure ISP as in .net type retailers.

Q. Would you turn to page five of the study.

A. (Complies.)

Q. Actually, the first full paragraph that starts on that page describes how HP identified Internet service providers as that term is defined in this document.

A. Yes, sir.

Q. And the second to the last sentence states, verification, well, actually, the second and third to the last sentences, no, I guess I do just want the second to last sentence, excuse me:

> Verification was to dial the number and detect a modem tone indicating that users dialed in for some form of data service.

So according to the verification, it could have been an Internet service provider, as you have defined the term, or it could have been some other data service, couldn't it?

A. It could have been, but that was not the situation here. In fact, having been associated with this, those were Internet service providers, retail.net

providers, as I have explained earlier.
Q. On page three of the study, the paragraph prior to the heading 3 data collection, may I name this particular customer?
A. I'm sorry, sir, I'm not finding a customer name.
Q. Page three, it's the paragraph above the heading 3 data collection, it starts:
The third part calculated the same statistics for some non-ISP customers, in particular, three --
A. Yes, Pizza Hut.
Q. Okay, last thing I want to do is get Pepsi-Cola down on me.
Why were Pizza Hut restaurants chosen?
A. Actually, the Hewlett Packard people selected Pizza Huts as a comparative example of a customer who might have, as it explains I think in a later paragraph, who might have been I believe the words are characterized by some as one-way call services.
Q. I believe it's in that same paragraph.
A. Okay.
Q. If I'm not mistaken. It says:
In particular, three Pizza Hut restaurants were examined because some

believe that a Pizza Hut restaurant may
be a close approximation to an ISP.

A. Yes, thank you, sir.

Q. Do you know who the some is in that reference, who the some are that believe that the Pizza Hut --

A. I didn't write it, so I suspect that that's perhaps some sort of a perception that a lot of people might have.

Q. Are you familiar with Pizza Hut restaurants?

A. Yes.

Q. You can dine in at a Pizza Hut as well as order delivery from a Pizza Hut; is that your understanding?

A. That's true, and they have a product called pizza that doesn't require the use of a telephone in that case. In fact, it basically doesn't require the use of a telephone as a product in and of itself, which is quite different than Internet service providers, which absolutely require telephony to deliver their product.

Q. I guess I'm assuming that the reason that some may believe that a Pizza Hut would be a close approximation to an ISP is because they may receive a lot of calls for some service.

A. I believe that's a general belief of the public perhaps.

Q. And I guess my point is that there's no basis here to assume that Pizza Huts would necessarily fit the description of another purely delivery type service provider.

A. Sir, I find that to be a matter of common understanding.

Q. What do you find to be a matter of common understanding?

A. That Pizza Huts would be largely a place that received telephone calls for the provision of their subsequent and different product called pizza.

Q. But this study was to determine the volume of calling, was it not?

A. Yes, sir.

Q. Wouldn't you expect the volume of calling to be higher to an establishment that only delivered as opposed to also had service on premise?

A. Yes.

Q. Also on this page there are a list of the four central offices or end offices that were studied. Are the identity of those central offices confidential?

A. No, sir.

Q. Are you familiar with these areas that are

served by these end offices?
A. Yes, I have been in the Thousand Oaks central office.
Q. Am I correct that they serve primarily residential and small business customers?
A. Having the most experience with Thousand Oaks, I would not necessarily characterize Thousand Oaks as residential. It's a fairly vibrant business community as well. The others I'm not quite as familiar with, but I really wouldn't say that those are exclusively residential and small business.
Q. But certainly they're not the same as Long Beach or downtown Los Angeles?
A. That's a judgment that I wouldn't undertake at this point.
Q. Do you know whether the calling characteristics of these end offices is comparable to the calling characteristics in any of the central offices in Washington?
A. We have experienced quite a bit of Internet traffic load during the actual business day busy hour in Washington that has caused myself and some switching engineers to have to go into whether or not -- actually, at the point in time that it was, sir, I had a product or have, I had a product at the time, I guess I lost it

about a year ago, that provided modem access for another large customer. In fact, modem access customers tend to be very large, because a lot of them are wholesalers. So, you know, Olympia.net would more than likely buy its modem access from a wholesaler rather than provide its own modems.

In any case, yes, the answer is that I would expect that the GTE Verizon territory in Washington, particularly Kirkland and Redmond, would show traffic characteristics similar to Thousand Oaks.

Q. Now as I understand it, this study was conducted, the sampling actually was conducted during a week in August of 1997; is that correct?

A. Yes.

Q. And that was approximately six months after passage of the Telecommunications Act of 1996?

A. Yes.

Q. Well, more than that, it was '97, that was more than a year and a half after the passage of the Act.

A. Okay.

Q. Is there anything in this study that addresses intercarrier traffic as opposed to just the traffic that is carried on Verizon's or at that time GTE's network?

A. I think that if we talk about 17 to 1 ratios and then if we make a conclusion or judgment that the 17 to 1 would indicate that there is Internet service providers on an intercarrier interconnection link, then the study is valid from the perspective that it studies Internet service provider traffic.
Q. But there's nothing in the study itself that addresses traffic that comes from any other source than other Verizon or at this time GTE customers, is there?
A. Well, actually, especially for the exchanges studied, which are in greater L.A., there is a lot of intercarrier traffic between us and PacBell, so the data here would not strictly be Verizon California data. It would include intercarrier traffic between us and PacBell as well as intercarrier traffic between whatever other carriers existed in these exchanges. So it doesn't specifically get to that question, but it doesn't exclude that traffic at all.
Q. On page four at the bottom of the page, it's a paragraph that starts on page four and carries over to page five, it states:

> GTE provided a list of 34 suspected ISP terminating numbers as well as 3 Pizza Hut store terminating numbers. The ISP numbers were determined by GTE using

various public resources such as
Internet web sites and Yellow Pages.

My understanding from our conversation earlier was that GTE now Verizon knows which of its customers are ISPs. Why did you go through this mechanism if you know what customers are ISPs?

A. Well, I think that's a good question, and it has to do with the date of the study. The situation, and I basically took over the ISP segment about six months before this study was done, was that the retail arm of Verizon had control or whatever you want to call it of the ISP marketplace, and a decision was made to transfer control of the ISP market segment to wholesale, which is my department. And there was a considerable amount of conflict at this time, which has long since been resolved, between the retail and wholesale arms. And I think as I mentioned earlier in prior testimony, that has to do with the commissions that are paid to sales people who sell these services. So at this juncture, there were difficulties is the best way to put it identifying ISPs, and that is -- actually, it was resolved through the '98, '99 time frame.

Q. Would you turn to page ten of the study, and am I correct that the first full paragraph on this page was what you read into the record prior to the time that

this exhibit was identified and entered?
A. Yes, it is, and the point of reading it into the record was that the largest cited alternative to ISPs in this paragraph only has 1% of the traffic that ISPs have.
Q. And the comparisons in this paragraph are telephone number to telephone number, are they not?
A. I do not know.
Q. Well, let's look at page nine on the chart, upper left-hand corner; isn't that a telephone number?
A. Yes.
Q. So am I -- do I assume correctly that the data on this page comes from calls made to this telephone number?
A. On page nine, yes. I'm not so sure that the statement on page ten is dependent on page nine or even the table underneath that.
Q. Well, looking at the chart on page nine, if you look at the first set of numbers under hour, number of calls, et cetera, so within the first hour.
A. Mm-hm.
Q. The number of calls, called holding times, and then the second column, seconds.
A. Yes.
Q. That's obviously many call paths that are

assigned to that particular telephone number, isn't it?
A. Yes.
Q. And if you turn to the chart on page ten, again upper left-hand corner, that's a telephone number, same information in the chart. If you look at the number of calls, the average call holding time seems like this is probably a single business line as opposed to multiple paths coming off of the same telephone number. Is that a fair assumption?
A. Do you mean -- do you mean that the table on page nine would have a multiline hunt group, and the table on page ten wouldn't? I'm not so sure that that's the case. I think that these are interesting tables in the sense particularly that number of calls not answered on page nine is, you know, significant. While on page ten, there are no calls not answered. And I think that that's important, because that has important effects upon the network.
When you talk about call setup, basically if my experience with reciprocal compensation comes into play, you won't see bills for calls that have not proceeded and been completed. And so therefore, there's a lot more call setups going on, in other words reaching busy signals in this instance, than would be experienced by the average use of a phone call. Those call setups

are costing money, and I don't believe that the current structure accounts for that.
Q. Well, that's all well and good, that really wasn't my question, however.
Are you saying that based on the table on page ten that it's very likely that this telephone number has multiple paths, calling paths, associated with it based on the amount of traffic?
A. Yes, sir, that's probably multiple trunk hunt groups of sometimes those number up into 3000 to 4000 DS0 paths, which is one of the high speed --
Q. You're talking about the table on page nine, right?
A. Yes, sir.
Q. All right. And then on page ten, you wouldn't make that same conclusion based on the amount of minutes and number of calls to this telephone number, would you?
A. It would be a smaller hunt group, but it could certainly be a multiline hunt group. The way those work, of course, is that they just ascend hunt through the originating number, so there's no way to tell for sure that the Pizza Hut doesn't have a multiline number.
Q. Well, is there any hour during the day that

the traffic could not be handled over a single business line with no hunt groups, just a single basic business line, based on the table on page ten?
A. It can't be determined, sir.
Q. It can't be determined?
A. Whether or not that's a single line or a multiline hunt group.
Q. Well, what I'm asking you, however, is based on the traffic levels here, could it all be accommodated over a single line without a multiline hunt group?
A. Either way, it could have been accommodated either way.
Q. Well, the customer is paying a lot of money for extra lines that it doesn't need if it's got more lines than -- if it can handle all the traffic over a single line.
A. That's non-traffic sensitive demand; they order as many as they wish.
Q. But it's not a non-traffic sensitive cost, is it?
A. From the perspective that that's a customer line that's ordered by the customer, then the non-traffic sensitive pieces of it are strictly a function of how many orders, that's --
Q. Are you familiar with the type of service

that Pizza Hut restaurants get?
A. In my experience, typically they would have key system type services, which are one kind of multiline hunt group.
Q. Would they have the same level of multiline hunting as an AOL?
A. Probably not.
Q. And based on the traffic volumes in each of these two studies, there's a significant difference between the amount of facilities that are used by the table on page nine than on the table on page ten, isn't there?
A. Well, there might very well be, and that's part of the indications that you're looking at roughly 50% of the traffic load being on ISP traffic, so yeah.
Q. Was there any effort to try and identify a non-ISP customer that had the same amount of call paths associated with a single telephone number as AOL?
A. I believe that effort would have gone unanswered, because I don't think there's any other kind of customer that would have the same kind of call path quantities as AOL in my experience.
Q. So there aren't any other large businesses that would have multiline hunt groups?
A. Not in this 4000 to 5000 range of hunt

groups.
MR. KOPTA: Thanks, that's all I have.
JUDGE BERG: Anything else from other counsel?
Questions from the Bench?
Dr. Gabel.

E X A M I N A T I O N

BY DR. GABEL:
Q. One area, Mr. Jones. Have you been involved in looking at Verizon's interoffice trunk monitoring reports, you know, reports that would indicate the amount of traffic that goes over interoffice facilities during a 24 hour period?
A. Interoffice?
Q. Interoffice.
A. Yes, sir, I have.
Q. Okay. And do those reports indicate to a traffic engineer the number of minutes that are carried over each of the 24 hours of the day?
A. Yes, they're called trunk studies.
Q. And do the trunk studies also indicate the number of messages over each of the 24 hours of the day?
A. Yes, those are called pay counts.
DR. GABEL: Thank you.

JUDGE BERG: Any redirect, counsel?

MS. MILES: No.

JUDGE BERG: Any further questions?

All right, Mr. Jones, thank you for sticking with us for another day to follow up on these questions here. You're excused from the hearing.

THE WITNESS: Thank you.

JUDGE BERG: Let's be off the record.

(Discussion off the record.)

JUDGE BERG: Mr. Knowles, if you will stand and raise your right hand.

Whereupon,

REX M. KNOWLES,

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

JUDGE BERG: Thank you.

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

BY MR. KOPTA:

Q. Mr. Knowles, would you state your name and business address for the record, please.

A. My name is Rex M. Knowles, and my business address is 111 East Broadway, Suite 1000, Salt Lake

City, Utah 84111.
Q. And on whose behalf are you testifying today?
A. XO Washington.
Q. Did you prepare or have prepared the exhibits that have been marked for identification as Exhibits T-1210 through T-1213?
A. I have.
Q. Do you have any corrections or changes to make to any of those exhibits at this time?
A. I do not.
Q. Are those exhibits true and correct to the best of your knowledge?
A. They are.
MR. KOPTA: Your Honor, I move for admission of Exhibits T-1210 through T-1213.
JUDGE BERG: Hearing no objection, they are so admitted.
MR. KOPTA: And Mr. Knowles is available for cross-examination.
JUDGE BERG: Thank you.
Mr. Devaney.
MR. DEVANEY: Thank you, Your Honor.

C R O S S - E X A M I N A T I O N
BY MR. DEVANEY:

Q. Good morning, Mr. Knowles.
A. Good morning.
Q. John Devaney representing Qwest. Mr. Knowles, I'm going to begin by questioning you about the subject of compensation for interconnection facilities.
A. Okay.
Q. And as I understand the dispute, it concerns the extent to which Qwest and Verizon should be required to pay for the interconnection facilities that XO or other CLECs obtain to interconnect with the ILECs' networks; is that correct?
A. For the purposes of terminating traffic that Verizon and/or Qwest originate to XO.
Q. And the reverse as well, correct? Obviously XO is obtaining facilities and other CLECs are obtaining facilities so that they too in theory can originate traffic?
A. That is correct, but I was just clarifying that my testimony wasn't trying to get Verizon or Qwest to pay for that proportion of facilities that are used to terminate our traffic as well. We were expecting to be compensated from the other carriers.
Q. Okay. Now what I want to try to do is see if we can come to agreement on what Qwest is willing to

cost share in terms of interconnection facilities.
A. Okay.
Q. So I want to ask you a few questions about that. If you would turn, please, to page 12 of your responsive testimony T-1210.
A. Yes.
Q. At line 17, you say that:

Qwest proposes cost sharing based on circumstances when Qwest provides the interconnection facilities outside the CLEC's switching center.

Do you see that?
A. Yes.
Q. And that refers to entrance facilities, correct?
A. Yes.
Q. And so is it your understanding that Qwest is agreeing to share the costs of entrance facilities with CLECs?
A. That is my understanding.
Q. Okay. So we don't have a dispute with respect to that particular piece of a facility, correct?
A. Correct.
Q. Okay. And if you turn to page 13, and this is the sentence that carries over to page 14, it reads:

In these circumstances, the CLEC provides the transport between its switching center and the ILEC's central office as well as the entrance facilities in the CLEC switching center.

Now is it also your understanding that Qwest has agreed to cost share the costs of these transport facilities?

A. That's my understanding.

Q. Okay. So again, we don't have a cost sharing dispute with respect to those facilities except to the extent that Internet traffic is included or not in the calculation of relative use; is that correct?

A. There are some caveats I would add to that. It depends on how those facilities are being provisioned. We don't have a dispute necessarily that the facility type we're talking about is subject to compensation. The question is at what rate on those.

Q. Okay.

A. And then on the ISP issue, I'm not positive that I recall Qwest stated that they refused to pay for that.

Q. But with respect to at least the type of facility, transport facility, you agree there's no dispute, that Qwest is agreeing to cost share, correct?

A. That's correct.

Q. Okay. And then also at page 13 of your testimony, line ten, you describe the meet point arrangement; do you see that?

A. I do.

Q. Let me ask you first, would you agree that the costs of meet point arrangements will vary on a case-by-case basis?

A. I do.

Q. And why is that?

A. Because it depends on where the meet point is determined to be, and it could be in 90% on one carrier and 10% on the other or vice versa. It would be a case specific determination.

Q. Are you aware that Qwest has agreed to work with the CLECs on a case-by-case basis for meet point to work out who pays for which portions of the facilities?

A. I'm generally aware that that would be the case.

Q. Okay. So with that background, what I want to be clear about is the only dispute between Qwest and CLECs like XO is the extent to which there will be cost sharing for collocation facilities; is that right?

A. There will potentially, based on what you were saying earlier, be a dispute with respect to the type of traffic that would be included in determining what facilities are subject to cost sharing. But besides that, that is probably correct.

Q. Okay. And XO, for example, wants Qwest to pay for construction costs, for example, relating to collocation facilities; is that correct? I should say to share in the construction costs.

A. This might be a good time for me to -- yes, to the extent that that is a rate that is not consistent with the rates that we would see for interconnection facilities from the other rates that we have an option to pay from.

And let me just take this a step further, and maybe we can help shorten the total time frame we're talking about this issue, because --

Q. Actually, I would just like you to answer, if you could, the question that I posed. Is XO seeking to have Qwest pay for some portion of the construction costs for collocation facilities?

A. To the extent that the collocation facilities are being used in part to provide interconnection and to the extent that those collocation facilities are priced in a way that is inappropriately high and would render those facilities much more expensive than using what Qwest is willing to pay for, then yes.

Q. And is the same true for cable racking, that XO is seeking to have Qwest pay some portion of the costs of cable racking used in collocation?

A. The answer is the same in that if the costs that Qwest is imposing upon XO to get access to that cable racking is overly expensive and beyond the cost of what it really should be, then yes.

Q. Okay. And the same position holds true for multiplexing, DS1, DS3 terminations, and expanded interconnection channel terminations; is that correct?

A. That is correct.

Q. Okay. It's true, isn't it, that XO and other CLECs can interconnect with Qwest without collocating in a Qwest central office?

A. It is true that you could interconnect, however, that interconnection is extremely limited in its applicability.

Q. For example, XO could interconnect at the point of interconnection hole; isn't that one possible method, without collocating?

A. Are you referring to a meet point situation?

Q. Yes, in that situation.

A. In a meet point situation, that is one possible avenue.

Q. In addition, you could also interconnect in the POI hole, correct, which is as I understand it different from a meet point arrangement?

A. That is not my understanding, no.

Q. That's not your understanding?

A. That is not my understanding.

Q. Okay. Now instead of -- strike that.

A benefit of interconnecting through something other than, for example, a meet point arrangement is -- a benefit of interconnecting through collocation as opposed to a meet point arrangement is that collocation gives XO and other CLECs other options in functionality; is that correct?

A. That is correct.

Q. Okay. And looking at page ten of your testimony, for example, lines five through eight, you state:

> In addition, interconnection via collocation is more efficient because XO uses collocation not just for interconnect, but to access Qwest unbundled network elements and to provide an alternative source of interoffice transport to other companies.

Do you see that?

A. I do.
Q. And those are benefits that XO and other CLECs gain through collocation as opposed to just interconnection, correct?
A. That is correct.
Q. And so when you say here that interconnection via collocation is more efficient, what you really mean is more efficient for XO as opposed to Qwest, correct?
A. I haven't made the -- I don't know that I can say that it is not necessarily more efficient for Qwest. My statement here was with respect to XO, but I did not make a statement with respect to the efficiency associated with Qwest.
Q. Okay. But that's my only question. Your statement here when you say it's more efficient, you mean it's more efficient for XO, as you stated here, correct?
A. Correct.
Q. Okay. And now let's just focus on some of the benefits that XO receives by collocating as opposed to interconnecting at a meet point, for example. You state here, I think, that one of the benefits is XO can gain access to unbundled network elements, correct?
A. That is correct.
Q. And you also state here that another benefit

is that XO can provide an alternative source of interoffice transport to other companies. That's another benefit from collocation to XO, correct?
A. That is correct.
Q. And is another benefit the fact that XO can cross connect if it desires with other CLECs?
A. That is correct.
Q. And by cross connecting with other CLECs, XO can provide services to those CLECs and in turn receive services that it desires to acquire from those CLECs; is that correct?
A. That is another correct statement.
Q. And those benefits that we just talked about are benefits that aren't necessary for just interconnection, correct?
A. Those benefits that you talked about are what's necessary for a competitor to be viable in the marketplace. They are required to get competitors' customers, and if you don't have customers, there's no requirement to interconnect.
Q. I understand.
A. To their --
Q. But with the technical respect of those benefits are aren't necessary to have interconnection, correct?

A. No, but they are necessary to have any competition.
Q. Understood. In any case, it is because of those benefits that we have just talked about that XO chooses to collocate as opposed to just interconnect, correct?
A. Yes, it's required for us to have customers to allow us to have a need to get interconnection facilities for the terminating traffic. Without customers, we would have no need, and therefore we would have no facilities.
Q. I take it that you would agree Qwest is not in a position to demand collocation in XO's central offices; is that right?
A. I would defer that to a legal interpretation of the requirements of the Act of my attorney.
Q. Okay. Well, is XO willing to permit collocation by Qwest or Verizon in its offices?
A. We have allowed collocation to virtually anyone who has come in and wanted to pay for it.
Q. Is that right?
A. That is correct.
Q. And what is XO's policy as to cost sharing for companies that collocate within its central offices; do you know?

A. What do you mean by cost sharing in that respect?

Q. Does XO pay collocation facilities that other carriers install in its offices?

A. To date, no. However, also to date we have never had an ILEC who is using those facilities to provide interconnection service back to us.

Q. Okay. But for any carriers that have collocated in XO's offices, is it correct that XO has not paid any portion of the collocation facilities that have been installed in those offices?

A. That is correct, because we have not had an analogous situation.

Q. Okay. Changing the subject for a moment, Internet calls, would you agree with me that Internet calls placed from Washington have to be routed to remote hubs located on the Internet backbone?

A. I'm not a technical witness on it. I don't know exactly the type of infrastructure that Internet hubs are, that kind of topology that's used in writing those networks.

Q. Okay.

A. It's my general assumption, but I'm not an expert in that area.

Q. Okay. Do you know if any remote hubs are

located in the state of Washington?
A. I am not aware.
Q. You are not aware of any, or you just don't know?
A. I just don't know.
Q. Okay. And will you agree that most Internet calls placed in Washington have as their ultimate destination web sites that are located outside Washington in other states or other countries?
A. I do not know that.
Q. You don't know that?
A. I do not know that. If I can explain, my understanding is that there are, and again I'm not an expert in this area so, but my understanding is there is a bunch of information that are contained on local data bases that don't require going outside of the local jurisdiction.
Q. But you have no concept of what percentage of calls actually --
A. I have never done a study on that issue.
MR. DEVANEY: Your Honor, may I have one moment to confer?
JUDGE BERG: Yes, sir.
MR. DEVANEY: Thanks very much.
JUDGE BERG: Let's be off the record.

(Discussion off the record.)

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

BY MS. ANDERL:
Q. Good morning, Mr. Knowles.
A. Good morning.
Q. I'm Lisa Anderl representing Qwest, and your counsel has graciously agreed to let both Mr. Devaney and I cross-examine you today.
A. It's always a pleasure.
Q. You can take that up with him later.
Mr. Knowles, the questions that I ask you about your testimony are all going to be about your October testimony, which has been marked and admitted as T-1210, just so you have that in mind.
A. Okay.
Q. You have been a witness for XO in Part A of this docket; is that right?
A. That's correct.
Q. And you have also been a witness for Nextlink in Docket 960369?
A. That is correct.
Q. Have you read the Commission's 13th Supplemental Order in this docket from Part A?
A. I know I have, but I can't remember

specifics.
Q. Do you recall that as the January 31st order which decided the collocation and OSS issues, among others?
A. Yes.
Q. Have you read the 8th and 17th Supplemental Orders from Docket 960369?
A. I have read the orders, but I don't remember which order was dealing with which issues.
Q. And did you read the later orders that discussed de-averaging the loop?
A. Yes.
Q. Back to the Part A order, and the following questions are going to be about OSS cost recovery so you know.
A. Okay.
Q. Do you recall that the Commission's Part A 13th Supplemental Order allows Qwest to recover certain OSS transition costs?
A. Generally, yes.
Q. Do you recall that to be in a total amount of $5.5 Million?
A. I don't recall the specifics.
Q. Do you recall the rate that Qwest is allowed to apply?

A. Not off the top of my head.
Q. Do you recall the cost recovery methodology, in other words how Qwest is allowed to apply the charge?
A. Generally, yes.
Q. And is that per LSR?
A. Correct.
Q. Do you also recall that the Commission permitted OSS cost recovery for modifications to Qwest's OSS to permit line sharing?
A. I do recall that.
Q. And would you accept subject to your check that the rate for OSS transition cost recovery permitted for Qwest is $3.27 per LSR?
A. That strikes my memory as being reasonably accurate, yes.
Q. Now in Part A, XO advocated that one possible method of OSS cost recovery would be through an end user surcharge; is that right?
A. That is correct.
Q. That position was not adopted?
A. You are correct.
Q. Would you agree with me that Qwest's OSS or access to Qwest's OSS is an unbundled network element?
A. That's my understanding of the Act.
Q. Does XO also have operational support

systems?
A. It does.
Q. Are you aware of whether the Act requires XO to allow other carriers to access its OSS?
A. Not directly, no.
Q. You --
A. I mean indirectly it's required to have access both ways in order for an order to be provisioned across one OSS to the other OSS, so there is some interactivity.
Q. But it's not access in the same method as that required from the incumbent, is it?
A. Correct.
Q. Have you ever designed an operational support system for a large telecommunications carrier?
A. Thankfully, no.
Q. Have you ever modified an operational support system for a large telecommunications carrier?
A. No.
Q. Have you ever purchased a software upgrade that was to be a part of a modification to an operational support system for a large telecommunications carrier?
A. I personally have not.
Q. Did you read Ms. Albersheim's testimony in

this Part B?
A. I reviewed all the testimony, so I know I have, although I don't remember the specifics to that reference.
Q. Do you recall testimony discussing additional costs that Qwest has incurred to modify its OSS to comply with the UNE remand requirements?
A. Generally.
Q. And do you also recall testimony that identifies potential additional OSS modification costs depending upon how line splitting is implemented?
A. Generally.
Q. Is it your testimony in this docket that Qwest can modify its OSS to comply with the UNE remand or line splitting without incurring any additional costs?
A. No.
Q. Assume that Qwest does incur costs to modify its OSS to comply with the requirements of the UNE remand order and the line splitting; are you contending that Qwest should not recover those costs?
A. No.
Q. Changing subjects, Mr. Knowles, let's talk about UNE conversions.
A. Okay.

Q. And this is in your testimony T-1210, pages 17 through 20.
A. Yes.
Q. Let me make sure that I have the context defined for the record here. Is it correct that the UNE conversions from tariffed services that you're talking about are limited to situations where XO is currently the customer of record for the tariffed service and wishes to remain the customer of the underlying facilities and convert them to UNEs?
A. That is correct.
Q. Are you familiar generally with portions of the UNE Remand Order that permit CLECs to ask for such conversion?
A. Yes.
Q. And are you also aware that the FCC issued both a supplemental order and a supplemental order of clarification addressing those issues?
A. Yes, I am.
Q. Is it correct that the FCC in those three orders laid out certain sets of circumstances under which XO could request those types of conversions?
A. With respect to EELs in particular, yes.
Q. And is it correct that the general circumstance which must exist in order for an ILEC to be

obligated to do such a conversion is that there must either be substantial or significant amounts of local traffic over the facilities?
A. And that is specifically true for EELs in that order, yes.
Q. The type of tariffed services that XO wants to convert to UNEs, is that limited to special access or private line in your testimony here?
A. Yeah, that's primarily where XO has its issues, yes.
Q. And is the conversion -- strike that.
The UNEs to which you wish to convert those services include both EELs and DS1 and DS3 capable loops; is that correct?
A. Yes, EELs and high capacity loops are the ones in particular we were looking at.
Q. Does XO currently purchase special access or private line services from Qwest under a tariff?
A. Yes.
Q. And is that generally the FCC tariff?
A. Generally.
Q. From reading Ms. Million's testimony in this docket, particularly her rebuttal testimony, are you aware that Qwest agreed for purposes of conversion from retail service to the UNE platform Qwest is willing to

use the previously approved customer transfer charge?
A. That is my understanding, yes.
Q. And are you also aware that Qwest has a customer transfer charge approved by the Commission for purposes of converting or for purposes of resale to private line specifically?
A. Yes.
Q. Have you been advised by your counsel that Qwest has represented earlier in this proceeding that it is willing to use the Commission approved customer transfer charge for private line as the nonrecurring charge for conversion of private line to UNEs when the CLEC is the customer for the private line and the subsequent UNEs?
A. That is my understanding.
Q. And would you accept subject to your check that that Commission approved rate is approximately $44 for the first line and $26 for each additional line?
A. Yes.
Q. Is that proposal acceptable to XO for this proceeding?
A. It is.
Q. Now you also mentioned in your testimony the issue of a retroactive surcharge. That's at pages 18 and 19. Do you recall that testimony?

A. Yes, I do.
Q. When did Qwest first mention that surcharge to you, or was it Qwest or U S West?
A. It was U S West at the time. It would have been approximately one year ago when we were starting to try to get our conversion request through to Qwest, and they were coming back with the issues that we were going to have to deal with. One of them was this issue.
Q. Mr. Knowles, have you been provided by your counsel with a document that has been marked for identification as Exhibit 1214?
A. I have. I didn't bring it up to the stand with me.
MS. ANDERL: May I approach, Your Honor?
JUDGE BERG: Mr. Kopta, do you have a copy for --
MR. KOPTA: If I can stand next to him, then we can certainly share one.
JUDGE BERG: Well, let me check, Ms. Anderl, do you have a spare copy?
THE WITNESS: I've got one in my bag.
MS. ANDERL: I do have a spare.
JUDGE BERG: All right, why don't we just do that.
THE WITNESS: Thank you.

MS. ANDERL: It's a spare because I have memorized it.

BY MS. ANDERL:

Q. Do you recognize that Exhibit 1214 as an excerpt from Qwest's FCC access tariff?

A. Yes.

Q. And do you see that it's page numbered both on the top and then on the bottom, and the bottom numbers are pages one through five?

A. Yes.

Q. And would you turn to pages four and five.

A. (Complies.)

Q. Is it your understanding that the charges identified on those pages four and five form the basis for the surcharge proposal that was made to you approximately one year ago?

A. That's my understanding of the basis for their statement, yes.

Q. Now Qwest has not proposed that surcharge in this docket, has it?

A. Not to my understanding.

Q. And you're not asking this Commission to rule on the applicability of Qwest's FCC tariff to any particular UNE conversion, are you?

A. The only exception I would make to that is

that the reason that we have been purchasing out of the FCC tariff is because of our inability to purchase out of the interconnection agreement high capacity loops, which we believe we have been entitled to for some period of time. So we have made purchases out of the FCC tariff due to the inability to purchase elsewhere. So to the extent that that was being applied to circuits which we think should be looked at and viewed at as local but we have been required to buy them out of interstate, then we think it should be in this Commission.
Q.   As opposed to the FCC?
A.   As opposed to the FCC.
Q.   Now XO does currently -- has XO converted any special access or private line to UNEs yet?
A.   We have not been able to.
Q.   Are you in the process of submitting orders to do that?
A.   We are attempting to, yes.
Q.   And are there some issues around the type of certification that's required in connection with the submitting and processing of those orders?
A.   The issues aren't for the most part about the certification. The issues are mostly about things such as the restriction on commingling of different types of

services, Qwest's classification of interconnection trunks as a finished service and their lack of willingness to allow us to use the same facilities for both interconnection services and unbundled network elements, and a variety of things like that, but not necessarily on the identification of the local. We concede that that's a requirement, and we don't have an issue with that.

Q. Okay.

A. Requirement.

Q. And the other issues that you just identified, is it your understanding that most, if not all, of those issues are currently being discussed in one or more state proceedings dealing with the 271 issues?

A. That is correct.

Q. Mr. Knowles, let's talk about poles, ducts, and conduits for a little while.

A. Oh, boy.

Q. And that's your testimony starting on page 20.

MS. ANDERL: Your Honor, before I leave that other area, I would move the admission of Exhibit 1214.

MR. KOPTA: No objection.

JUDGE BERG: It's admitted.

And, Ms. Anderl, why don't we go ahead and take the morning break, and we will resume at 11:00 with poles, ducts, and conduits.

(Recess taken.)

BY MS. ANDERL:

Q. Mr. Knowles, poles, ducts, and conduits.

A. Yes.

Q. Exhibit 1210, you state at page 20, lines 20 through 22, that Qwest has provided no cost support or any other evidence that identifies, much less quantifies, the cost Qwest incurs to process requests for access. Is that correct?

A. That is correct.

Q. Now prior to the time that you filed this testimony in October, had you reviewed Ms. Million's direct testimony?

A. Yes.

Q. Had you also reviewed the exhibits that were attached to her testimony including specifically the nonrecurring cost study?

A. Briefly.

MS. ANDERL: I'm going to ask the judge if I might approach the witness to hand him a portion of what has previously been identified and admitted as Exhibit C-1002.

JUDGE BERG: Yes. Is this a compete copy of C-1002?
MS. ANDERL: It's not, because that's 322 pages, and I'm going to hand the witness pages 311 through 322.
JUDGE BERG: All right.
MS. ANDERL: Mr. Kopta, would you like to --
MR. KOPTA: I've got one.
THE WITNESS: Thank you.
JUDGE BERG: And, Ms. Anderl, I will just ask, do you think the Bench will be able to follow your line of questioning without having a copy in front of it as well?
MS. ANDERL: Yes, although I would certainly be happy to wait if people want to get to that page in the exhibit.
JUDGE BERG: Let's just --
MS. ANDERL: It's page 311 of 322, and the exhibit number is C-1002.
JUDGE BERG: Why don't you go ahead and start and --
CHAIRWOMAN SHOWALTER: Well, wait, as long as we're going to get there, 1002?
MS. ANDERL: Yes.
JUDGE BERG: Page 311.

CHAIRWOMAN SHOWALTER: Thanks.
BY MS. ANDERL:
Q. Mr. Knowles, do you have page 311 of 322 in front of you?
A. Yes.
Q. Would you agree that Exhibit C-1002 is the original nonrecurring cost study sponsored by Qwest in this docket and filed by Ms. Million on August 4th?
A. It appears so, yes.
Q. Can you read the line in bold under work item A on page 311?
A. Pole inquiry feet per mile.
Q. And do you see listed below that six individual work items to be performed within the infrastructure availability center?
A. I do.
Q. And do you see that for each work item, there's a time in minutes listed?
A. Yes.
Q. And that there's also a probability of occurrence listed?
A. Yes.
Q. And that in column H there is a dollar figure which represents the cost per labor hour?
A. Yes.

Q. Turning to page 314 of 322, do you see that that represents a similar cost detail summary for the interduct inquiry fee per mile?
A. Yes.
Q. And then on page 317, there is an identification of a labor activity for a field verification fee poles per pole?
A. Yes.
Q. And then finally on page 320, do you see that there is an identification of work activities in order to perform the field verification for manholes on a per manhole basis?
A. I do.
Q. Is it correct that XO is one of the joint CLECs who are sponsoring the testimonies of Mr. Klick and Mr. Weiss?
A. Yes.
Q. And while those exhibits and testimonies have not yet been admitted, do you recall that each of those witnesses undertook an analysis of Qwest's nonrecurring cost studies?
A. Yes.
Q. And that Mr. Weiss in particular restates Qwest's work times and probabilities for a number of the nonrecurring costs?

A. Generally.

Q. Is it also correct or would you accept subject to your check that neither of those witnesses adjusts either the work times or the probabilities for the four nonrecurring activities that we have just discussed, the pole inquiry fee, the per mile, the interduct inquiry fee per mile, the field verification fee poles per pole, or the field verification fee for manholes per manhole?

A. That is my understanding, based on their area of testifying, they have not addressed that.

Q. Lastly, Mr. Knowles, you discuss the distinction between the fees that Qwest proposes when Qwest's own technicians perform these field verifications or inquiries and the situation where the CLEC wishes to perform that activity themselves. Do you recall that testimony?

A. Yes.

Q. And it's correct, is it not, that Qwest has not proposed rates for those occasions where the CLEC does its own field verification?

A. That is my understanding, and after looking at this, I guess that continues to be my understanding, yes.

Q. Okay. Now would you agree with me that

Qwest's technicians and outside plant personnel will still be involved to some extent in a field verification process even if the CLEC performs its own field verifications with its own employees?

A. The only caveat, the only difference I would say to that statement, so in general yes, but the only issue I have in particular is with the field verification associated with manholes. In looking -- at the time that I prepared the testimony, I had not particularly paid attention to this, as you pointed out, but I have since been able to review this and look at some of the information here.

And with respect to manholes in particular, I have gone to our engineering experts within XO and said, what is involved in the review of manholes to get access to conduit. And with respect to that, I have found that there is substantial differences in what is put forward on page 320 of 322 versus what is really required.

Q. Okay. Now the question that I had asked you, Mr. Knowles, though was relative to when the CLEC is performing the field verification, and my question was simply, did you agree that Qwest personnel would still need to be involved to some extent even if the CLEC were performing the verification?

A. I'm not certain with respect to manholes per

manhole whether that would be required or not.
Q. Okay. Now you have stated that Verizon's proposal to negotiate and arbitrate, if necessary, the appropriate level of those fees is acceptable to XO; is that correct?
A. I'm sorry, can you refer me --
Q. Page 22, lines 8 through 11.
A. Okay, here we are, okay, that's correct.
Q. And to the extent that Qwest has not yet proposed rates in this docket for CLEC field verification, would it be acceptable to XO if Qwest were also willing to negotiate those rates and then arbitrate them if necessary?
A. Yes.
MS. ANDERL: That's all that I have, Your Honor.
JUDGE BERG: Mr. Edwards.
MR. EDWARDS: Thank you, Your Honor.

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

BY MR. EDWARDS:
Q. Mr. Knowles, I'm Jeff Edwards representing Verizon. You and I have, I think, talked in the past.
A. We have, thank you.
Q. I have just a couple of areas to follow up

on. The first has to do with questions that Mr. Devaney had asked you about cost sharing for certain facilities.
A. Yes.
Q. And he focused on the collocation area, which I also will focus on, and I want to make sure I understand your testimony in response to some of Mr. Devaney's questions. And I understood you to say that you believe that there should be cost sharing for collocation facilities to the extent collocation is used to provide interconnection and is priced inappropriately high; was that your testimony?
A. That is correct.
Q. Conceptually you would agree with me, wouldn't you, that whether or not there should be cost sharing for collocation facilities should be disassociated or irrelevant with respect to whether the prices for those facilities are high or low, shouldn't they?
A. The issue in my opinion is one of clerical ease in dealing with it. To the extent that the facilities are actually being used to provide the interconnection, I think the facilities being used are the appropriate cost to take into consideration when you're making that determination.
However, for the purposes of simplicity, if

we're able to use a surrogate, for instance, the interconnection trunk pricing that we've got separately available, if that surrogate is reasonably in the ball park of the costs that we're talking about to do it with -- the way it's actually provisioned with collocation, then it's fine to do that kind of a change and use the actual facilities, I mean use the interconnection facility pricing as a surrogate for what we actually do to get the interconnection.

But if that pricing for interconnection is inappropriately priced so large that there's a huge disparity between the charges that we're given to get collocation versus what's required for interconnection trunks, then it's not appropriate.

Q. So is the logical conclusion of that position that if the collocation prices are not "inappropriately high", then there should not be sharing for the collocation costs?

A. If the collocation costs are reasonable, then XO is willing to use the interconnection trunking charges as a surrogate for ease and simplicity, and that would be fine.

And further note, the Commission recent order on the collocation costing issue we think puts into place reasonable prices for collocation. And to the

extent that that Commission decision is maintained, we would be fine with using interconnection facility trunking as the price to go forward.
Q. Actually, you have anticipated my next question, because you understand that there are collocation costs and prices that have been recommended by the Commission or that have been decided by the Commission?
A. That is correct.
Q. Then I take it from your last answer then that based on XO's view of the reasonableness of those costs and prices that your recommendation with respect to cost sharing on collocation elements is moot?
A. To the extent that the Commission's decision is maintained.
Q. Just to follow up on some questions that Ms. Anderl asked you about OSS cost recovery.
A. Certainly.
Q. Her questions were specific to Qwest, as I would anticipate them to be, but her conclusory question was whether you would agree or whether it's XO's position in this docket that Qwest should not be allowed to recover OSS costs incurred beyond those addressed in Part A, or stated another way should not be allowed to recover its OSS costs for UNE remand issues and line

splitting issues. And I believe you said that was not XO's position with respect to Qwest; is that correct? Let me ask it another way.
Is it your position or is it XO's position that Verizon should not be allowed OSS cost recovery for UNE remand and line splitting issues?
A. That is not our position.
Q. Let me ask you to look at your rebuttal testimony, which is Exhibit T-1213, page 5. Are you there, sir?
A. I am.
Q. And let me ask you to focus I guess on lines 20 over to line 2 of the next page. The section begins on line, it's kind of 21 1/2, I guess it's 21, where you talk about CLECs ordering DS1s and DS3 circuits out of the ILEC special access tariffs; do you see that?
A. I do.
Q. Am I correct that your testimony here is that when you say CLECs, are you being specific to XO or XO and others?
A. I am speaking in the general sense here.
Q. All right. Is your testimony then there that the CLECs have been ordering certain services out of special access tariffs and then using those services to provide local service?

A. That is correct.

Q. And you would agree with me that the services being offered out of the special access tariffs are not intended to provide local service; is that correct?

A. My understanding of special access services is that they can be used for that as well as other activities, not that they are limited. The reason that we're using special access service to provide services that are primarily local, but they also have non-local aspects to them, but they're primarily local is because we have had difficulty in getting access to what we consider to be the obligation of the ILEC to provide, which is access to high capacity loops. To the extent that we haven't been able to get those via the interconnection agreements, we have been kind of pushed to get them out of whatever agreement or whatever tariff we possibly can, including the FCC tariffs.

Q. To the extent that those services are available through interconnection agreements as unbundled network elements, for example, if those services are purchased out of the special access tariffs, would you agree with me then that the purchaser is able to bypass the UNE pricing structure that would apply to those services?

A. I don't know what you mean by bypass.

Q. Well, presumably if those services are being purchased out of the special access tariff, the prices or charges relating to those services are from the special access tariff; is that correct?

A. That is correct.

Q. And if those same services are available as unbundled network elements, then the prices that apply under the Telecom Act with respect to the purchase of UNEs are being bypassed; is that correct?

A. To the extent that I think that the operative word you said was if you can do that. The problem that we have got is we haven't been able to do that with most of the ILECs is to get access to high capacity loops via the interconnection agreements that we have negotiated for a variety of reasons. And due to that, we have not been able to take advantage of the pricing that we are entitled to for unbundled network elements, so we have been required to pay higher prices to get the same functionality via another avenue.

Q. The sentence that begins also on the bottom of page five:

> The circuit's already in place, and the CLEC has already paid a nonrecurring charge to order the circuits and have them installed.

Do you see that?
A. I do.
Q. And is your reference there to a nonrecurring charge that's provided by the special access tariff?
A. That's correct.
Q. Have you made a comparison between the or have you compared the nonrecurring charges from the special access tariff to the nonrecurring charges being proposed in this docket for DS1s or DS3s by Verizon, for example?
A. I have not. Well, I have reviewed them generally. I don't remember them specifically. But if my guess is correct, their nonrecurring charges for UNE unbundled network elements are probably substantially higher. But I was referring to, when I'm talking about the overall cost, the long-term cost associated with the unbundled network elements in general from ILECs.
Q. Would you know as you sit here today whether, in fact, there are any nonrecurring charges applicable under the special access tariff for DS1 or DS3?
A. With respect to Verizon's tariff?
Q. Yes, sir.
A. I would have to double check that.
Q. So you don't know today?
A. I only assume.

Q. Okay. And with respect to both the nonrecurring charges and the recurring charges.
A. Yes.
Q. Out of the special access tariff, do you know, and again speaking with respect to Verizon, do you know whether those charges are TELRIC or TELRIC based?
A. I'm sorry, which, in the special access tariff?
Q. Yes, sir.
A. I don't know what cost basis Verizon would have used to develop their rates for the FCC tariff. I don't believe they're under the same obligation as they are to use TELRIC as the basis as they are for UNEs, for instance.
Q. Let me ask you to look at page 20 of your response testimony, T-1210. And the testimony here is -- that's actually at the bottom of page 19, and it carries over to page 20. It has to do with your position, disagreement I guess between you and Mr. Lee, regarding whether a CLEC or XO should have to pay termination liability for the conversion of a service out of the -- purchased out of the special access tariff to a UNE, correct?
A. It has a caveat in that the termination liability as mentioned on page 20, lines 2 and 3, the

termination liability should be no higher than the amount needed for Verizon to recover its cost to provide the facilities. But with that caveat, yes.
Q.   Am I correct that what practically happens here is that the CLEC and Verizon would negotiate a long-term contract with respect to the service being purchased, and that contract would contain in it a termination liability provision?
A.   Which contract are you referring to?
Q.   The contract with respect to the special access services being purchased. For example, let me refer you to line 17 of page 19.
A.   Yes.
Q.   You use the term long-term contract there.
A.   Mm-hm.
Q.   And what contract are you referring to?
A.   Okay. To the extent that a contract was required to obtain special access circuits, that's different than what the tariff would be.
Q.   Right.
A.   That would be a contract I'm referring to.
Q.   All right. So you're referring to where there is a -- is the contract that you're referring to there an interconnection agreement?
A.   No.

Q. Different contract?
A. Correct.
Q. And that contract then would be specifically applicable to the special access services?
A. Yeah, what we found with dealing with most ILECs is that when we're dealing with the special access circuits and there's no facilities, many times they will build it and just do it under their normal FCC tariff. In some scenarios, they will come to us and say, this requires a bigger commitment for us to incur the costs to build the facilities to provide this service. In that scenario, we have on many occasions entered into contracts to say we will maintain the service for a three year term. Typically they're a term agreement saying we will continue to pay for this for a period of time. So they have an opportunity to recover the costs associated with the build of that facility.
Q. And presumably when the contracts are entered into, the parties could have negotiated and entered into an agreement with respect to limitations or caveats, if you will, as to the applicability of that termination liability, correct?
A. The possibility is there, however, in the situation we're describing, the power in the negotiation is very one sided.

Q. Often true in negotiations, Mr. Knowles.

In effect, what you're asking the Commission to do here is add a provision or to rewrite the contract that's been entered into; is that correct?

A. Well, what I'm suggesting here is that when we have purchased special access circuits that really should have been able to be purchased as unbundled network elements and where the -- let me take it in two parts.

The first part is where we have purchased special access circuits where we would like to have purchased unbundled network elements but were not able to and we want to convert those to an unbundled network element, there shouldn't be a termination liability associated with that. The facility is still being used, its not going away, we're still compensating the company for the cost of that based on what the Commission has determined.

If there is a special circumstance where an extra construction is required and a special contract is required to build that facility, that we shouldn't be required to continue to pay prices which are higher than the unbundled network element prices once the time frame has passed where the ILEC has been able to have an opportunity to recover the costs associated with that build that would be extraordinary to a normal situation.

So, for instance, if the scenario we're talking about is one where there's facilities that are lacking and Verizon would need to go out and build, then Verizon wants to come to XO and say, in order to make it worth our while, you need to hold this facility at these rates and terms for one year. XO wouldn't have a problem with maintaining those at that price for one year with one caveat, and that is that there are other restrictions on the use of special access circuits.

And this -- I'm getting back to the commingling issue I discussed earlier, which I talked to Mrs. Anderl about. To the extent that we're providing local service over special access circuits, we aren't able to use that facility on an unbundled network element platform using -- or using their transport and MUXing, and so we've got restrictions that are against us in that respect.

My position is that we should be able to classify these as unbundled network elements for purposes of provisioning and for network efficiency. But yet if there is a special construction required and that means there's a three year or a one year term that has pricing that's associated with that, that those would be maintained, there wouldn't be a termination

liability just because we want to be able to treat it as an unbundled network element for purposes of provisioning and other restrictions that might be applied.
Q. Let me ask a couple of follow-up questions. You would agree with me that if special construction is required, then it's not something that could have been provided as a UNE?
A. I don't agree with that, but I agree that the ILECs in the state have refused to provide it as a UNE, and therefore we were required to order as a special access circuit to be able to obtain it.
Q. And would you agree with me that if the service is converted to a UNE, that then there are no restrictions on the CLEC with respect to the termination of that service or the termination of the use of that service?
A. As I mentioned in my testimony, I think that there is reasonable restrictions to that, which means that we shouldn't require that the ILEC not get compensated for the construction costs or the extra costs associated with the recovery of that facility.
Q. So presumably then, you would agree that the CLEC should nevertheless retain responsibility for the full cost, whatever it is, of the construction of the

facilities as well as their conversion?
A. What I'm saying is that the CLEC, at least XO, would be willing to abide by the same rates that the ILEC would charge any retail customer to get the same construction accomplished.
Q. That may be where I'm not sure I understand you. Because if the construction is specific to a CLEC request for a special access service and then it's converted to a UNE, what I understand you to be saying is that the rates should stay the same, but the ultimate recovery by the ILEC might differ?
A. I think we're on different tracks here.
Q. Okay, help me, if you will.
JUDGE BERG: And, Mr. Knowles, let me just say sometimes it's hard for me to follow some of your responses because you're not beginning with a yes or a no response followed by either a restatement or an explanation. So if possible in response if you could make a yes or no, it might help provide some context for the explanation to follow.
THE WITNESS: Okay.
A. Could you restate the question?
BY MR. EDWARDS:
Q. Yes, sir. Under the contract applicable to the special access services, the termination liability

provision is inserted so as to give some protection to the ILEC that it will recover the special construction costs related to whatever the service is, correct?
A. That's my understanding.
Q. All right. Now if that service is converted to a UNE, I had asked whether there was any restriction on when the CLEC might terminate the use of that service?
A. My response is that I think that if there was special construction required that the CLEC can and should be -- maintain the same pricing they paid under the special access arrangement for that term, but have it converted to an unbundled network element for purposes of combinations and other applicable operations from an unbundled network element perspective. And then at the termination of the term, that the pricing should revert back to an unbundled network element pricing as well.
Q. But when you say pricing for that term, are you talking about the recurring rate?
A. Yes.
Q. And then would you agree with me that if your proposal were adopted, then the potential exists that the ILEC would have a shortfall with respect to the recovery of those costs that would have been protected

against under the contract?
A. No.
Q. Why is that?
A. Because if the contract we're talking about says you will pay this nonrecurring charge and a separate monthly recurring charge and you're required to maintain the service for 12 months, I have agreed to all of those stipulations that you would have required of anyone else. At the end of that 12 months, any customer could disconnect altogether, and Verizon would be in a situation where they would get no additional recovery. What XO is stating is that after the end of that 12 months, we would revert back to unbundled network element pricing for the remainder of the use of that facility.
Q. All right. Let me pose it as a hypothetical then, let's use the 12 months. Suppose XO and Verizon enters into a contract for the kinds of facilities that we're talking about. And that contract says that XO agrees to use these facilities for a minimum of 12 months, and that if at the end of 6 months it wants to terminate the contract it has to pay termination liability, right?
A. Okay.
Q. All right. Now suppose at the end of four

months, XO converts that service to a UNE, all right?
A. Okay.
Q. And the same recurring rates apply, all right?
A. Okay.
Q. And at the end of five months, XO terminates the service, all right?
A. Okay.
Q. If I understand your proposal, at the end of five months when XO terminates the service, Verizon does not get any termination liability payment?
A. That is not what I said.
Q. All right. Then I don't understand the proposal.
A. I said that XO, whether it was purchased -- whether it was classified as a special access service or an unbundled network element would pay for the full -- would have a requirement to hold that circuit for 12 months at the prices that were originally discussed on the retail side. After that 12 months, the pricing would revert back to unbundled network element pricing.
This is, of course, specific to those situations where, you know, special construction is required and you have to enter a contract to make that happen.

Q. So the proposal then is that whatever the term of the contract is would be applicable to the service as provided as a UNE?

A. That is correct.

MR. EDWARDS: That's all the questions I have, Mr. Knowles, thank you.

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

BY MR. TRAUTMAN:

Q. Good morning Mr. Knowles.

A. Good morning.

Q. I'm Greg Trautman, Assistant Attorney General for Commission Staff. The questions I have relate to your rebuttal testimony, which has been marked as T-1213.

A. Yes.

Q. And turning to page 1 of that testimony on lines 18 and 19, you state:

> XO generally supports the positions of Commission Staff as described in Dr. Blackman's testimony with one exception.

Let me ask, Mr. Blackman in his testimony, I will just read a sentence from this testimony, which was T-1230 at page ten, line four, he stated:

The standard for reciprocal compensation rates is the cost that the originating carrier would have incurred had the call stayed on its own network.

Do you agree with that position?

A. No, I don't believe so. I believe that the costs that we suggest are appropriate are those costs that would be incurred to terminate that cost -- terminate that call within the comparable geographic area that the -- that the ILEC tandem serves, and therefore, the ILEC tandem rate would apply when a CLEC terminates it over that same comparable area. So it may be, but not necessarily, the same cost that the ILEC would incur themselves.

Q. So in some instances, your position would be that the CLEC should get more than it actually would have cost the ILEC to provide that service?

A. I don't know that I agree with that statement. The network configuration that we're talking about here is what we're looking at, whether it's potentially direct end office connections or going through a tandem or going through a fiber ring. The costs are different for each type of interconnection, and what's required for a CLEC to interconnect Qwest to each of its customer base is not the same as what necessarily Qwest would incur to keep it within their own network. We've got different networks, and so it's not the same costs, and I don't know that I can agree with that statement.

Q. Okay. But if the original statement was that the standard for rates should be the costs that the originating carrier would have incurred, all right, and if you don't agree with that statement and yet there are other instances in which the CLEC's costs might be greater, wouldn't the logical end result of that be that in certain situations the CLEC would receive more than the ILEC's costs would have been had the ILEC provided the service on its own network?

A. Could you restate the last part of that again? I want to make sure I answer this correctly.

Q. Okay. Well, I originally asked whether the standard for reciprocal compensation should be the costs that the originating carrier would have incurred had the call stayed on its own network, and I believe you stated that you did not agree with that statement. Then I asked whether in certain circumstances the CLEC would therefore receive more than the ILEC would have incurred in costs had it -- had the call stayed on the ILEC's network, and I think you then said you didn't agree with that, and so I'm trying to resolve those statements.

A. Okay, I'm sorry. Back to the first question, which is the same costs as the originating carrier, I agree that it's the same costs as the originating carrier for terminating within a comparable local serving area. If you're talking about within that local serving area specific points, that would depend upon how the ILEC routes its own network. If they're using direct end office trunks versus tandem switching, tandem trunking, transport scenario, it could be different.

Now to the second point, which is the CLEC would receive more, that's not necessarily true. The question is will the CLEC receive more to terminate the calls within the same geographic area, and that's not the case. That's what we are entitled to is the cost to terminate within that same geographic area using our switch and our fiber ring to do that.

Now our costs are irrelevant, because what we're talking about is what the ILEC's costs are to do the same thing, and they would use a tandem switching, transport, end office combination to get that done. We use a fiber optic ring, switching, transport topology to get that done.

Q. I'm still not clear why the amount that the CLEC would receive in that circumstance would not be a greater amount than the amount of costs that the originating carrier would have incurred had the call stayed on its own network. Given that fact pattern, it seems to me that those costs could be greater, they could be less, but they're not the same. But in certain circumstances, the CLEC would be getting a greater amount than those avoided costs; isn't that correct?

A. Potentially if you're -- but I want to make sure you're including all the costs associated with interconnection on the ILEC network, including those interoffice direct trunks. But with that caveat, it could be higher.

Q. If you could turn to page 3 of this same testimony, Exhibit T-1213, and I'm looking at lines 13 through 16, and here I believe you testified that the volume of traffic necessary to justify direct trunking to an end office is 512 calls a second or CCS at the peak usage hour?

A. That is what's required in our agreements with Qwest, yes.

Q. Okay. So does this mean that if there were 512 CCS of traffic from one end office to another end office that it would be appropriate to use direct trunking and to bypass the tandem switch?

A. Our agreement requires that when the traffic volumes between XO and Qwest offices exceed 512 CCS that we're required to use direct end office trunking.

Q. Now on the other hand, if the 512 CCS that was being terminated on that switch were originating from many different switches, would it still be appropriate to establish direct trunks from all of those switches?

A. Not necessarily. It depends on what the levels are coming from those other switches in total.

Q. Would it be in that instance more cost efficient to use the tandem even though it has additional switching costs so as to avoid the cost of the direct trunking?

A. Potentially if cost is your only consideration. The other considerations would be network blocking and the ability for your customers to get connected.

Q. Staying on that same page and going to the top, lines one and two, you have a phrase stating, where the traffic originates, whether at a tandem or an end office, and then the sentence continues. You refer to traffic originating at the tandem, but is it accurate to state that the traffic originates at the tandem?

A. Probably a more accurate way of stating that so -- no, probably a more accurate way of stating that is routed through a tandem to get to XO.

Q. So would it be the case then that a CLEC might accept the traffic at the tandem, but that the traffic would actually originate at some end office switch?
A. That is how it works, yes.
Q. You then state on the same page, line three, you say:
Dr. Blackman's observation that Qwest terminates traffic delivered via direct trunk groups to its end office thus does not support his conclusion that a CLEC is entitled to compensation at the end office rate when Qwest originates and delivers traffic via direct trunk from its end office to the CLEC for termination.
Do you see that?
A. Correct.
Q. Now is your point here that in many cases the CLEC performs the tandem switch function when Qwest delivers traffic via direct trunks to the CLEC switch?
A. Yes, in that the CLEC switch and fiber optic rings basically cover that same or comparable geographic area. So we terminate it, even if it's originating from one end office, we could be terminating it clear across

town in a different end office altogether.
Q. And are you saying that the CLEC should be compensated for performing that tandem function for Qwest?
A. Yes.
Q. If you could turn to page four of your testimony, I'm looking now at lines eight through ten, and you state:

> Rather the CLEC's reciprocal compensation rate is determined according to the geographic scope of its switch, not the geographic scope of the specific Qwest switch to which the CLEC switch is interconnected.

Do you see that?
A. Yes.
Q. Okay. Let's assume we had a situation where a CLEC's network is capable of serving a broad geographic area, but in fact all of the customers, all of its customers, are in the same building in downtown Seattle where the switch is located. And in addition, let's assume that the ILEC has established direct trunks from its end offices because the traffic volumes being terminated on the CLEC are well above 512 CCSs. Given that, given those assumptions, is it your testimony that

in this situation the ILEC should pay the CLEC for tandem switching?

A. Given your hypothetical, I don't believe so. But I think that you need to look -- we need to look back at the FCC's rules, because I believe what we're talking about is where it actually serves a comparable area, not where it's just capable of serving but doesn't. So I think what we're talking about here is the specific situation where the CLEC actually is serving a comparable geographic area, not just the capability.

Q. How do you make that distinction between a situation where a CLEC is capable of serving and when it actually is? Can you, you know, can you draw a distinction in terms of, you know, percentages, or how do you determine, how do you determine that?

A. I would determine it based on where the CLEC customer premises locations are actually located.

Q. And how many customers would you have to have to determine that there's serving area?

A. I have not come to a conclusion, but I would assume you would have to have -- you would have to have some.

Q. So if you have 99% in the same building, all right, is that other 1% enough to be deemed service, or

I mean where do you draw the break line?

A. I have not thought through a break line percentagewise or otherwise. I have looked at it in a generic where are you getting your customers, where is the service going to, do you have your customers all in one place, or do you have them served throughout the broad area.

For instance, XO has service mainly in two areas in Washington, Spokane and Seattle. We're connected with all of the end offices in the major areas of both of those serving territories, at least in the Qwest areas of those. And we have customers, a great number, and we actively market. We have plenty of customers in each of those areas.

So I haven't gone to the extreme analysis you're talking about, which is you put 99.9% at one place and you put a token person out there to try to game the system. That's not what I am intending to do.

Q. But by the same token, there's not any lesser amount of percentages other than 99 and 1 that you --

A. Like I said, I have not given it that kind of an analysis.

MR. TRAUTMAN: Thank you, that's all the questions I have.

JUDGE BERG: We will take our lunch break and be back at 1:30.

(Luncheon recess taken at 12:00 p.m.)

A F T E R N O O N   S E S S I O N

(1:40 p.m.)

JUDGE BERG: Dr. Gabel, do you have questions for Mr. Knowles?

E X A M I N A T I O N

BY DR. GABEL:

Q. Mr. Knowles, this morning in response to questions from both Ms. Anderl and I think, well, I'm certain Ms. Anderl, you talked about why you were using the FCC's interstate special access tariff to obtain certain high speed connections. And could you just explain why you weren't able to use your interconnection agreement and why you have had to turn to the FCC tariff?

A. In general, there are a variety of reasons. One is getting a high capacity loop amendment to our interconnection agreements. Our original interconnections agreements had different provisions in them in different states, most of which completely ignored the high capacity loop specific situation. And

so one would be getting interconnection agreement amendments negotiated through the process that will take into consideration these loops.
Another issue is the willingness or lack of willingness on behalf of the ILECs to construct facilities if there aren't "facilities available". They refuse to take on that obligation if, in fact, we order it as an unbundled network element. But if we order it as a retail service, if you will, they will treat it the same way they would any other retail customer ordering a DS1. So we will still have held orders, but in most cases they would construct, in some cases they would add special terms and conditions associated with term for that facility.
So those are the primary reasons why we have purchased out of the other tariff.
Q. Okay. And also could I ask you to turn to Exhibit 1213, this is your response testimony of October 23rd.
A. Yes.
Q. Page eight.
A. Is that 1210?
Q. No, I'm sorry, 12 --
JUDGE BERG: 1210.
Q. 1210.

A. Yes, okay.
Q. Page eight. I'm sorry, 1213, your rebuttal testimony of February 7th.
A. Okay.
Q. Page eight. You state at lines five and six that:

> Verizon should not be permitted to impose any termination liability as long as the contract rate is at or above the UNE rates for the same circuits.

Would you please explain why you use this criteria that the UNE rates are at or above -- well, could you explain this portion of your testimony?
A. Yeah, what I'm trying to discuss here, and this is the situation outside of the special construction area that we talked about to some extent earlier, this is a situation where we have been -- where we may have entered into term or volume agreements with the ILEC in order to get access to these high capacity circuits at rates that are reasonably close to where approximating where we felt like we should have been able to obtain via unbundled network elements but have not been able to. So in this scenario, we were in a situation where we had to purchase out of the special access tariff. Some companies went and got term and

volume discounts for the volume they were buying.

And now that we're in a situation where we finally have the ability to convert those to unbundled network elements, we think that we should be able to convert those without having to deal with the termination liability. The facilities are still in use, we're not disconnecting anything, we're just changing it from what we have paid, the rates and terms we had paid, to the rates and terms we feel that we should have been able to pay all along without having to enter into that kind of an agreement.

Q. Now why do you qualify your comment with as long as the contract rate is at or above the UNE rate? Would you ever convert to UNE rate where the UNE rate was above the contract rate?

A. Possibly. If the situation that I described earlier, probably not as eloquently as I should, there are several provisioning situations where we are not able to take what Qwest considers to be a finished service and combine it on the same transport and MUXing facilities as we have our unbundled network elements on. So in some ways you need to be consistent regardless of the price of a particular element just so that you don't have to duplicate facilities or use facilities unwisely. So that might be a scenario where we would make a choice

to pay a different rate.
Q. Thank you. And I guess finally, then why do you propose that Verizon not be permitted to impose any termination rate when the contract rate is above the UNE rate? Why do you believe that is appropriate?
A. I'm sorry, can you restate that?
Q. Okay. I'm reading your testimony.
A. Yes.
Q. You're saying that Verizon should not be permitted to impose any termination liability when the contract rate is above the UNE rate, and I'm just asking you why do you believe that that's the appropriate policy for this Commission to establish?
A. Because for the circuits that we're able to convert to unbundled network elements to begin with, they would have to qualify as predominantly local, and we should have been able to order them as unbundled network elements to begin with. We have had to purchase them under special access due to other constraints which we feel were beyond what was reasonable, and so they shouldn't be able to use the fact that they forced us to order it via one mechanism to continue to maintain a higher price for perpetuity once we have been able to finally get the appropriate unbundled network element pricing in place and be able to transition them over.

Q. Mr. Knowles, I just understood you to say that the incumbent should have been providing you these high capacity facilities as unbundled network elements. And two years ago were the ILECs in your view legally obligated to provide high capacity loops as an unbundled network element?
A. I'm not an attorney, but my personal opinion is that the original Act required the access to unbundled loops in all their varieties from day one, so yes.
Q. And did the FCC initially identify high capacity loops as an unbundled network element in its First Report and Order in the interconnection proceeding?
A. You're taking me way back to '96. I don't recall specifically that they were. I know that they have been addressed specifically since that point in time. So at the very minimum, from that point when they specifically did address it, it should have been available from that point forward to the CLECs.
Q. And that point would be when the Commission -- the FCC issued its UNE Remand Order?
A. Yes.
DR. GABEL: Thank you.

E X A M I N A T I O N

BY CHAIRWOMAN SHOWALTER:

Q. Well, to follow up that discussion, it seems to me that you are looking at those contracts as something of an interim arrangement pending what you feel you had been -- were entitled to to begin with.

A. That's correct.

Q. And that therefore the penalties or termination penalties which are part of that arrangement should be disregarded?

A. Yes. And in addition to that, we aren't terminating the use of the facility.

Q. Yes.

A. We're still using the facility, we're still paying for the facility, so we haven't terminated the use of the facility. So in that respect as well, I don't think that the termination liability should be applied.

Q. But you have or would be terminating the contract itself in favor of the arrangement that you wish you had originally had?

A. That is correct, and the mere point I was trying to make is that we're not talking about a stranded facility situation.

CHAIRWOMAN SHOWALTER: That's all.

COMMISSIONER HEMSTAD: I don't have any questions.
JUDGE BERG: Mr. Devaney, redirect, or excuse me, recross?
MR. DEVANEY: No, thank you.
MS. ANDERL: No, Your Honor.
JUDGE BERG: Mr. Edwards?
MR. EDWARDS: Briefly.

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

BY MR. EDWARDS:
Q. Am I correct that XO has an interconnection agreement with Verizon in the state of Washington?
A. Yes.
Q. In response to a question from Dr. Gabel, who was asking about the requirement to provide high capacity loops at a particular point in time, and Dr. Gabel's question was with respect to two years ago, and your response was you weren't sure but you know that there has been a requirement since that time and that your position or XO's position is that under the Act the ILECs have always had that obligation to provide high capacity loops; is that correct?
A. That is what I stated.
Q. And you would agree with me that under the

Act, there are mechanisms that are established to deal with a dispute or a disagreement such as the one you have articulated where an ILEC does not provide a service that a CLEC believes it is obligated to provide for interconnection; is that right?
A. Section 252, is that what you're referring to?
Q. We can start there.
A. Okay, yes.
Q. And under that process, the CLEC can request an amendment to its interconnection agreement for a particular service, right?
A. It can request it.
Q. And if the ILEC decides or does not grant that request, then the CLEC has the option to petition for arbitration on that issue, correct?
A. Yes.
Q. Okay.
A. There is a certain amount of time involved in all of that process, of course.
Q. And am I correct that in the state of Washington, XO did not avail itself of that process?
A. With respect to Verizon in particular, that is correct.
Q. With respect to high capacity loops?

A. That is correct.

MR. EDWARDS: That's all I have, Your Honor.

E X A M I N A T I O N

BY CHAIRWOMAN SHOWALTER:

Q. What about with respect to Qwest?

A. With respect to Qwest, we have negotiated with them, and I have on my, hopefully should have on my desk as of today in Utah an amendment to our agreement for Washington, which we will hopefully execute and submit to the Commission for approval within the next couple of weeks.

CHAIRWOMAN SHOWALTER: Thank you.

JUDGE BERG: Now redirect, Mr. Kopta.

MR. KOPTA: Thank you, Your Honor.

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

BY MR. KOPTA:

Q. Just a couple of areas. In working backwards, Mr. Knowles, you had a discussion with Dr. Gabel about termination liability on page eight of your rebuttal testimony, Exhibit T-1213, and Dr. Gabel was asking you why it was that your recommendation was that the contract rate be at or above the UNE rates for the same circuits. Do you recall your discussion with

Dr. Gabel on that point?
A. Yes.
Q. What's your understanding of how termination liability amounts are calculated with respect to term and volume discount contracts?
A. My understanding is that the termination liability associated with those types of contracts typically looks at the remaining term of the contract and takes the monthly recurring rate times the remaining number of months, multiples that out, and so the full cost that we're talking about there is the termination liability.
Q. So is it your understanding that the termination liability in those circumstances goes toward cost recovery to the ILEC for the services or facilities that it's providing?
A. That's my understanding of the intent of the term liability language, yes.
Q. That it's for costs or that it's for any margin above cost?
A. It would be for their normal operating, profit, cost, and everything else that's involved there.
Q. So it's your understanding that under the term and volume contract, the rates that Verizon or Qwest or any other ILEC is charging for the service is

still compensatory?

A. That's my understanding, yes.

Q. The second area is a discussion that you had with Ms. Anderl on poles, ducts, and conduits. Since it's such a fascinating topic, I didn't want to leave without allowing you another opportunity to discuss it. And she asked you whether XO would be willing to negotiate and if necessary arbitrate terms and conditions and rates for field verifications along the lines of your recommendation with respect to Verizon. Do you recall that discussion?

A. I do.

Q. Does Qwest's statement of generally available terms or SGAT have any impact on XO's position with respect to its willingness to negotiate or arbitrate that issue with Qwest?

A. Yes, to the extent that a statement of generally available terms is being negotiated, and prices associated with the services included are being determined at the Commission level on a generic basis and not on a carrier to carrier specific arbitration, that we believe that those rates should be included as a part of that SGAT proceeding rather than having it separate and apart from that.

With Verizon, for instance, who as far as I'm

aware has not tried to file a statement of generally available terms, when XO negotiates for PDC or poles, ducts, and conduits right of way, we can do that in the context of a company to company negotiation and arbitration. The SGAT is a little bit different situation in that respect.
Q. And does XO have concerns with an ICB rate element in an SGAT, specifically a CLEC's self verification fee, as opposed to having the Commission establish a fee for Qwest to undertake that verification?
A. Well, yes, the concern, of course, is that an ICB process can be both time consuming and require some kind of dispute resolution when we're trying to get facilities in place. And the incentive would be to require us to pay basically virtually the same amount as it would be for Qwest to do it themselves, which, of course, is a concern that puts us in a disadvantaged situation, how do we do it at the time that we want access to the facilities.
Q. And in your view, would it be appropriate for Qwest to charge the same thing to the CLECs for self verification as Qwest charged to undertake the verification?
MS. ANDERL: Objection, Your Honor, I think

that that question presumes a foundation that does not exist, which is the basis for the sets of charges.

MR. KOPTA: I'm not sure I understand the objection.

JUDGE BERG: I understand that it's a lack of foundation objection, and the foundation that is lacking is?

MS. ANDERL: The identified cost basis for both sets of charges. In the case of what Qwest is charging to perform the field verification, those costs and prices are in evidence. In terms of what Qwest would charge when the CLEC performs the verification, those costs and prices are not in evidence. So I believe the comparison that Mr. Kopta is asking his witness to do on redirect is without sufficient foundation.

MR. KOPTA: I can ask some additional questions if that would overcome the foundation issue.

BY MR. KOPTA:

Q. Mr. Knowles, referring to the nonrecurring cost study that Ms. Anderl walked through with you with respect to the various fees associated with poles, ducts, and conduits, and specifically let's discuss the field verification fee for manholes, which is page 320 of 322. And I apologize, I don't have the exhibit

number handy, but do you recall that document?
A. I have it here, yes.
Q. Is it your understanding that if XO or any other CLEC were to undertake a verification itself that it would undertake the same activities that are listed in this document?
A. No.
Q. Do you have any understanding about what activities would be required if the CLEC were to undertake a self verification?
A. Yes, I do.
Q. And those are?
A. Our engineers have told me that when they're trying to do a field verification, first of all, their statement to me is there shouldn't be a field verification, because the records should be accurate and tell us whether there is facilities available or not. The only reason to do a field verification is if somebody's records are inadequate.
However, if it's required to do field verification, my engineers have told me that we're talking about a time frame to go to the manholes that need to be reviewed of about two hours per manhole one time. And that is the amount of time that should be looked -- be able to do what's needed at the manhole, to

go in and view whether or not the facilities are available or not.

They have also mentioned that you don't need to do that at each and every manhole. You can do that at interim parts along the route. Depending on how bad the records are, you may have to do it more often than not, but the situation isn't one where it's required every time every place and that it should be limited where it is happening to about two hours per manhole.

Q. And what should Qwest's involvement be in that process if the CLEC is undertaking its own verification?

A. My understanding of what would be required from Qwest is to have a technician along with to make sure that we're looking at things appropriately and verifying what we're looking at, so let's say a person to accompany our technicians.

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

JUDGE BERG: Any additional cross-examination?

MS. ANDERL: Yes, of course.

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

BY MS. ANDERL:

Q. Mr. Knowles, staying on this same topic but

going back to the SGAT discussion.
A. Yes.
Q. Is it XO's understanding that the SGAT or 271 process precludes XO from having an individual one on one negotiation and arbitration with Qwest on an issue that is particular to XO?
A. No, as long as it's an issue that's particular to XO, I think that's the case. But access to poles, conduits, and rights of way I don't consider to meet necessarily that criteria.
Q. Well, even if access to poles, ducts, conduits, and rights of way were addressed in the SGAT and 271 proceeding, does XO believe that that precludes XO from having an individual negotiation with Qwest for particular terms and conditions that might meet XO's particular needs?
A. No.
Q. Let me ask you about the amount of time it takes to perform the field verification on a manhole by manhole basis.
A. Certainly.
Q. Would you agree with me that the amount of time to perform the inspection would to some extent vary upon the distance that the technician must travel to reach the manhole in any given case?

A. The time frames that I was referring to are specifically manhole related time frames, not travel time.
Q. Oh, okay. Did your engineering personnel identify any particular amount of travel time that might also be involved on either end of the actual manhole verification, manhole inspection?
A. We did not, I did not address that with him.
Q. Would you agree that if the manhole were some distance from the office where the technician worked, there would be travel time involved?
A. Yes, I do. However, I also would note that when we're looking for conduit, it's a number of manholes typically in a similar geographic area, so you wouldn't have a complete redundancy of travel time for each manhole visited.
Q. Did you discuss with your engineers whether or not manholes sometimes need to have either water or gas removed from them before it's safe to enter the manhole?
A. Yes.
Q. And did their time estimate that they gave you include time for pumping the manhole out either to make the air safe or to remove water?
A. Yes.

Q. Did you discuss with them how often they assumed that needed to happen; is that on every manhole?

A. It is assumed on every manhole that we enter, which is what we're talking about, that it is required.

Q. Is any time assumed in addition to the two hours to update records or prepare drawings?

A. Included in the 2 hours, my engineers have said that it really takes about 15 minutes for the technician to do a butterfly drawing of the manhole and the conduits that are associated therein. Now what Qwest would need to do to update their records after the fact, we didn't get into their time frame for how much cleanup they would have to do on the records.

Q. What's a butterfly drawing?

A. I don't know, that's the term they used.

MS. ANDERL: I think that's it.

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

BY MR. KOPTA:

Q. Just one follow-up question, or actually a couple of questions, one follow-up area. Mr. Knowles, do you have experience with interconnection negotiations with Qwest?

A. Yes, I do.

Q. In your experience, if the Commission has

approved an SGAT with terms and conditions and prices in it, what is the likelihood that Qwest would change any of the prices that the Commission has approved?
A. I need to qualify this answer, because I have not negotiated with Qwest on an interconnection agreement where there has been a state approved SGAT. Where there has been commission arbitrations on issues with a commission resolution on a particular issue, that may be an analogous situation, and in that scenario, we end up with a limit of what the commission had already determined in a prior docket for a prior case.
Q. And what is your understanding of the utility of having an SGAT as opposed to requiring carriers to negotiate interconnection agreements individually?
A. Obviously it's intended, I think, and I think it's actually working out hopefully that way, to be a time saving for all parties involved. We deal with the issue once. Where we know we're going to have disputes, we take care of them right then, and all parties are taken care of at one time. We don't have to do it on an individual case-by-case basis.
MR. KOPTA: Thank you, that's all I have.
JUDGE BERG: All right then, Mr. Knowles, that concludes your testimony here today. Thank you very much for being present. You're excused from the

hearing.

THE WITNESS: Thank you.

JUDGE BERG: We will be off the record momentarily.

(Discussion off the record.)

JUDGE BERG: Dr. Taylor, please rise.

Whereupon,

WILLIAM E. TAYLOR,

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

JUDGE BERG: Thank you, sir.

THE WITNESS: Thank you.

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

BY MR. DEVANEY:

Q. Good afternoon, Dr. Taylor.
A. Good afternoon.
Q. Dr. Taylor, you have filed both direct testimony and rebuttal testimony; is that correct?
A. Yes.
Q. Do you have any changes you would like to make to any of your testimony?
A. No.

Q. Are the answers that you provided true and correct to the best of your knowledge?

A. Yes, they are.

MR. DEVANEY: Your Honor, we would ask that Exhibits T-1120 through T-1122 be admitted, T-1120 being the direct testimony, 1121 being Dr. Taylor's CV, and 1122 Dr. Taylor's rebuttal testimony.

JUDGE BERG: Hearing no objection, they are so admitted.

MR. DEVANEY: Thank you, and Dr. Taylor is available for cross.

JUDGE BERG: All right. And, Mr. Devaney, you might want to pull that microphone back over for redirect when the opportunity arises.

MR. DEVANEY: Thanks.

MS. HOPFENBECK: Your Honor, Mr. Kopta is going to go first on this witness.

JUDGE BERG: All right, thank you.

Mr. Kopta.

MR. KOPTA: Thank you, Your Honor.

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

BY MR. KOPTA:

Q. Good afternoon, Dr. Taylor.

A. Afternoon.

Q. I have just a few questions are for you, and they all are based on your testimony in Exhibit T-1120, your direct testimony. And the first questions that I have are with respect to page 39.
A. Yes.
Q. Specifically beginning on line four, you are discussing there the relative cost differences for traffic directed to Internet service providers served using ISDN primary rate interfaces or PRI; is that correct?
A. Yes, with concentration ratios of one to one. That's an important qualification.
Q. Does Qwest use PRI to serve ISPs?
A. I don't know specifically, but I wouldn't be surprised.
Q. And do Qwest and CLECs use PRI to provide service to other businesses that are not ISPs?
A. Oh, certainly, and engineered at different concentration ratios.
Q. So there may be some that are on the one to one concentration ratio that you have discussed here?
A. Certainly is possible.
Q. Then would the conclusion and the recommendation you have in the paragraph beginning on line 13 apply for traffic that's directed to those other

customers as well as to ISPs?

A. The fact that I cite does apply to switching costs when ISDN -- when any one to one concentration is used. That is it becomes non-traffic, those parts of the switch costs that ordinarily would be traffic sensitive become non-traffic sensitive. That pertains to any form of traffic which is served using one to one concentration.

What you do with that fact is the subject of another part of my testimony, that is whether you disaggregate costs for ISP bound traffic as opposed to some other form of traffic is a different question. But it is correct that the costs depend only on or this cost feature depends only on the fact that part of the switch has become non-traffic sensitive.

Q. And I want to focus on the second aspect of it, which is if there's a cost differential with respect to a particular type of traffic termination, in this case a PRI with a one to one concentration, is it part of your recommendation or part of Qwest's recommendation that that traffic be treated separately for reciprocal compensation purposes if it's carriers that are not ISPs but are served in a similar manner?

A. In general, the answer is no. That is I think it's a broad view that Qwest would probably subscribe to that prices ought to follow costs. The level to which you disaggregate costs is sort of a regulatory question, that is cost of serving each individual is probably different, but we can't have everybody paying a different price, that's just unwieldly.

Why does it make sense to isolate ISP bound traffic which has a unique set of characteristics and not other traffic which may have characteristics that differ? Well, there are two reasons for that. One is that it's easily identifiable, and the traffic does have very different characteristics. But second and equally important is the FCC has already identified that class for us. For ISDN PRIs serving PBX trunks which may have one to one concentration, the Commission -- or Qwest is free to recover that, those costs any way it pleases within limits of state regulatory proceedings. However, for ISP bound traffic, it isn't. There is the ESP exemption which applies to only a certain set of this traffic.

And that's what makes me at least look at that set of traffic, observe why its costs are different, and say since we can't recover that any way we please because it's bound by the ESP exemption, let's try to look at its costs separately. It makes sense to look at its costs separately and not necessarily teenage children who have long holding times or PRI one to one concentration for PBX customers.

Q. So even though the costs may be the same to terminate traffic to these different types of customers, there are other reasons that you say that ISPs should be treated differently than those other customers that use the same type of service and incur the same or cause the LECs to incur the same costs?

A. Sure, the logic is pull out the ISP bound traffic, because that has to be treated separately for cost recovery. It's subject to a different set of rules, that is it has the ESP exemption. Take the whole pot of what's left. Well, that traffic has different cost characteristics. Some of it will have long holding times, teenage children. Some of it will have short. And we will average that all together just as we have done in the past and recover those costs or not using our usual regulatory tools. Because the Commission is free and Qwest is free where it isn't price regulated to recover those costs any way it pleases.

If it makes sense for some regulatory purpose or for a marketing purpose for Qwest to separate teenage holding times from my holding times and charge me differently from them, that's fine, that's a decision this Commission could make, or if it isn't regulated that Qwest marketing could make. But that doesn't apply to ISP bound traffic.

Q. Changing topics a little bit, and in this case I would like you to refer to page 48 of the same exhibit.

A. Okay.

Q. And beginning with the question on line seven, you have a discussion about whether reciprocal compensation for ISP bound traffic distorts local competition, and you give two ways in which that is the case. Is that a fair characterization of your testimony at this point?

A. Yes.

Q. The first, as I understand it, is that -- and I will just read the sentence beginning on line 11:

> As most switched ISP bound traffic comes from residential users, incentives to compete to serve residential users would be artificially diminished.

Do I take it by that statement that Qwest is concerned that there will be less incentive for CLEC's to serve residential customers because of reciprocal compensation for ISP bound traffic?

A. Certainly I am concerned. Whether Qwest is concerned is sort of a strange question. But yes, that's the point, that there is economic concern that the incentive on the part of CLECs or ILECs for that matter to serve residential potential dial up Internet users is diminished.

Q. Does Qwest contend that residential service is priced below cost in Washington?

A. I don't know the answer to that. I guess I probably do contend that, but I'm not sure exactly what the circumstance is. Certainly it's the case that some residential service is priced below forward looking incremental cost of serving those people. Whether that's true on average across all rate groups, I'm not -- I don't remember.

Q. Would that be true regardless of whether there is reciprocal compensation for ISP bound traffic?

A. I believe that's the case. In those calculations based on total service long run incremental costs, the ones I'm familiar with are mostly loop studies, which don't take into account reciprocal compensation payments at all.

Q. Well, if it's true that residential service is priced below cost in Washington, do CLECs have any incentive to compete to serve residential customers when the price leader has always set -- already set the price below cost?

A. Sure, it has exactly the same incentive that -- financial incentive that Qwest does. How does Qwest make money? Qwest makes money selling loops below cost, by assumption, because once it has the customer, it sells other services to that customer. And on average, it makes money selling services to residential customers.

What's the deal with a CLEC? A CLEC has the same opportunity. It can buy an unbundled loop at cost, at Qwest's cost. Let's hold aside the fact that the TSLRIC we have been speaking about is different from the TELRIC for the loop, but in principle, the CLEC incurs the same cost that Qwest incurs when it provides the loop, so the CLEC in theory is in exactly the same competitive position as Qwest is.

If it can sell enough ancillary services, toll, carrier access, vertical services to these customers to make up for the difference between the UNE loop price and the market price that the CLEC can charge customers, then that's fine.

CLEC has the additional advantage that it gets to target the customers for whom that's likely to be true, whereas the ILEC generally has to serve all comers.

Q. And that was one of the areas that I wanted to ask you about, because obviously the ILEC is in a different position than the CLEC in that it, at least for the most part, it serves the universe of residential customers and can therefore have some, for lack of a better term, cross subsidization between maybe individual services or individual consumers so that it roughs out or evens out the rough patches to be able to make money on an aggregate basis if not on an individual per customer basis. Isn't that an advantage that the ILEC has that the CLEC doesn't?

A. No. I mean if you think about it, what you suggest is that the ILEC has to serve everybody, so it gets the good customers and the bad customers. But the CLEC doesn't have that ability. It gets to choose, and it only chooses the good customers. How could that be an advantage for the ILEC? The ILEC is stuck with serving people for whom, the customers, residential customers, for whom the total revenue from serving that customer doesn't cover the cost. CLEC wouldn't knowingly ever try to attract such a customer. So the ILEC is always in the worse position as far as this form of competition is concerned, because it has to serve customers for whom it's not -- from which it's not going to make any contribution whatsoever.

Q. So do I understand your concern correctly that you want to preserve the incentive for CLECs to serve high revenue residential customers while Qwest continues to serve the low revenue residential customers?

A. In the short run absolutely, yes, I want to preserve a CLEC's incentive to serve residential customers no matter what. What we're putting on top of this, what reciprocal compensation does is it puts an additional distortion on top of the one that we have just been discussing, namely the fact that in addition to all the other problems you just named, if a CLEC serves a residential customer, the CLEC is then going to have to pay most likely reciprocal compensation if that residential customer accesses the Internet. Turns out that the ILEC has exactly the same disincentive, that is it doesn't want the customer for that reason any more than the CLEC does, but the ILEC doesn't have any choice in the matter.

Q. So you believe that a CLEC offering residential service in a particular area could turn down a customer because it doesn't feel that that particular customer will not generate enough revenue to allow the CLEC to make money on that particular service to that particular customer?

A. I'm not sure what the legal obligations on CLECs are. Surely CLECs can choose how to market to customers, how to supply services to customers. CLECs, I presume, can offer a bundle of services, for example. If you want to sign up with my CLEC, you will buy, you have to buy a bundle of local exchange, long distance, and three vertical services. I believe that's probably legal in Washington. It certainly is in other places. And that offering by itself is one which discourages people who may not want ever to make a toll call or to use a vertical service.

They haven't -- the CLEC hasn't ruled it out, hasn't violated any law, but because it's free to price its services and to bundle those services, it can make a service that's attractive to the kind of customers it wants to serve and is unattractive to the kind of customers it wants to discourage.

Q. Are you aware of any CLECs that are offering residential service in the state of Washington at this time?

A. Not specifically, no. I haven't studied any of them for this case.

Q. The second area or way in which you discuss the reciprocal compensation for ISP bound traffic would distort local competition is that ISPs would be better

off if their customers were served by the ILECs, and again this is on page 48 of your direct testimony, Exhibit T-1120. Is that a fair characterization of your second point?
A. Yes.
Q. Does this assume that the CLECs are passing on reciprocal compensation revenues to ISPs in one form or another?
A. In one form or another, sure. Either the market price of access that the ISPs pay to CLECs, that's the one that an economist would expect to be the form of this pass through, or explicit pass throughs of which there are at least one example that I'm familiar with.
Q. Right, and as I recall in response to a data request, that you were not aware of any such CLEC that is engaging in that in Washington?
A. In specific kickbacks, to use a nasty word, no, I'm not aware of any of that. On the other hand, the one -- the mechanism that I'm more afraid of or more believe in as an economist is the economic one. That is the market to serve ISPs is reasonably competitive. There are a bunch of CLECs out there all trying to serve these customers. And if as a consequence of serving an ISP, the CLEC gets a flow of contribution from

reciprocal compensation, that's an additional part of -- will be reflected ultimately in the market price, the price the market will set for the PRI trunks that CLECs sell to ISPs.
Q. You're aware that CLECs provide service in Washington under price lists and contracts that are filed with the Commission, correct?
A. Not explicitly, but I can take that subject to check.
Q. Okay. Have you reviewed any of these types of filings by CLECs in Washington?
A. No.
Q. Do you have any evidence that CLECs price their services to ISPs differently than other customers, for example, other customers of PRI, that there's a distinction between how they price PRI to non ISPs as opposed to ISPs?
A. No, in Washington I haven't -- I don't have any of that evidence. I should say it's also hard to get and ambiguous, that is the way that this competitive advantage or the contribution flow from reciprocal compensation gets passed through, one way is through price, but equally is through services, through higher quality, through all of the good things that CLECs say are the reasons why they dominate the ISP market. I

mean it's a totalogy almost in economics, one element of what you sell is price, the other is quality, and you can't really talk about one without the other. So I suppose the only evidence, direct evidence, I have is the evidence that CLECs say which is the reason why they're so successful with ISPs is because they provide much higher quality service.
Q. So you also don't have any evidence that CLECs are pricing their services to ISPs below Qwest's cost to also provide a competing service to ISPs?
A. I have no evidence one way or the other.
Q. And you are aware, I believe, from having participated in the docket that Qwest is competitively classified for business services provisioned over DS1 or higher capacity circuits in four wire centers in Washington; is that correct?
A. I think I was aware of that outcome, but I'm not -- wasn't quite sure exactly when that took place, if in fact it has taken place. I understand that to be a decision, but whether that's been implemented or not, I'm not -- I may be behind.
Q. And is it your understanding that PRI is one of those services that Qwest has competitive classification for in those areas?
A. I haven't thought about it, and my immediate

answer would be no, because I thought it was DS1 and higher was the standard, and that is not quite ISDN PRI. So I don't know is the short answer, and my instinct is the answer would be no, but I can take either answer subject to check.

Q. Well, I guess the question then is, is ISDN PRI provisioned over or can it be provisioned over a DS1 or higher speed trunk?

A. I think you're mixing apples and oranges, at least as far as my engineering expertise is concerned. Customers will buy a DS1 if they need 1.54 megabytes of service, and an alternative to that available over copper wire is ISDN service, but which ISDN PRI I don't think is 1.54 megabyte, but that's straining my knowledge.

Q. Well, we're straining each other's, because it was my understanding that ISDN BRI, B as in boy, would be the consumer line side connection, whereas an ISDN PRI would be trunk side. But since I am equally up in the air on that and I'm not testifying but you are, then maybe we ought to just leave it at that, and I will thank you for your testimony, thank you.

A. Thank you.

JUDGE BERG: Ms. Hopfenbeck.

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

BY MS. HOPFENBECK:

Q. Hello, Dr. Taylor.

A. Hi.

Q. I'm representing WorldCom today, and I would first of all like to talk to you a little bit about end to end analysis that you undertake in your direct testimony. I'm always at a loss for exhibit numbers, sorry.

MR. DEVANEY: Is it 1120 perhaps?

MS. HOPFENBECK: 1120, thanks.

BY MS. HOPFENBECK:

Q. Now the end to end analysis that you have undertaken is similar to the end to end analysis that the FCC undertook in its ISP order; is that right?

A. Came to the same conclusion, yes.

Q. Okay. And an end to end analysis is what the FCC has employed historically in order to determine whether a call is intra or interstate, falls into the enter or intrastate jurisdiction; is that fair?

A. That's my understanding.

Q. And when the appeals court, district court, the District of Columbia Court of Appeals remanded to the FCC that decision for reconsideration and further explanation, it sought from the FCC an explanation as to why the end to end analysis should apply in the context of reciprocal compensation; would you agree?

A. Yes.

Q. And, in fact, found that it really thought that the reciprocal compensation context might be different than the context in which the end to end analysis had traditionally been employed; is that true?

A. Well, I mean we may be straining at words. What the, well, what the court says is:

> There is no dispute that the Commission has historically been justified in relying on this, the end to end method, when determining whether a particular communication is jurisdictionally interstate, but it has yet to provide an explanation why this inquiry is relevant to discerning whether a call to an ISP should fit within the local call model of two collaborating LECs or the long distance model of a long distance carrier collaborating with two LECs.

So it sort of said, it said what you said, namely that the court said please give us an explanation, but I don't read into it a sort of a negative thing that says, gee, it should be the other way. Rather it's the situation is different, and why do you think your end to end analysis comes up with the local call model rather than the long distance call model.

Q.   Okay. As I understand it, I mean part -- when you're doing your end to end analysis, one of the conclusions that you draw is that the ISP stands in the I think you call it the economic role of a carrier?

A.   Yes, very much so. I think the FCC says that as well.

Q.   And the court of appeals in its decision remanding that ISP order concludes that in states that ISPs are not telecommunications providers; do you agree with that?

A.   I believe I have read that very sentence in the order, and where I read that sentence, there's no explanation of exactly what they mean by that, which takes me back to the FCC's ISP order where they carefully explain that in the FCC's view, ESPs and ISPs purchase carrier access, and that they are treated as end users for the purpose of paying for local access.

That's the ESP exemption, so I take the ESP exemption as the great exception to sort of everything that the FCC has done, and which is what's causing all of this problem. And for the purpose of tariffing the

service that ESPs and ISPs purchase, they will be treated as end users. It doesn't say they are end users, and it certainly doesn't make them end users from a functional perspective or, as I talk about it, from an economic perspective.
Q. Well, let's look at this from an economic perspective. In your testimony, you contrast what you call the ILEC-CLEC interconnection model with the ILEC-IXC interconnection model; is that right?
A. Yes.
Q. And you conclude that the ISP bound call or the ILEC-CLEC-ISP interconnection resembles the ILEC-IXC interconnection model, correct?
A. I think so, but that's a lot of ILECs and CLECs.
Q. Right.
A. Yes, that the ISP world is like toll rather than like local.
Q. Okay. And so I would like to just look at your testimony in Exhibit 1120 beginning at page 17 and the discussion that follows for 17, 18, and 19 there.
A. Okay.
Q. Now in describing the ILEC-CLEC interconnection model, which is the model in which it would be appropriate for the ILEC to compensate the CLEC

for transport and termination, correct?
A. Yes.
Q. You describe some of the characteristics of that model, and one of the things you identify is that Qwest will determine if the call has been completed, they will bill and collect from the customer for the call, and answer questions regarding the bill or the service; do you see that?
A. Yes.
Q. Okay.
A. It provides dial tone, transport, marketed the service, determined price, terms and conditions, complete, yes, all of that.
Q. Okay. Let's talk about completion. How does Qwest determine if the call has been completed?
A. In this sense, the call has been completed when the modem at the ISP goes off hook, and that call has been completed. I'm sorry, we're talking about local, sorry.
Q. Right, that's what I'm talking about.
A. The signal that comes back when the phone at the other end picks up.
Q. Now isn't it true that when a CLEC delivers a call to an ISP customer that they are serving, a similar signal goes back to Qwest indicating that the call has

been completed?

A. Yes.

Q. Okay. Now one of the things you identify is that Qwest has marketed this service to its subscriber. I assume you are referring to it's marketed its local service, solicited its local customer, is that right?

A. Correct, designed the service that it's offering to those customers.

Q. Now Qwest does market local service to customers specifically for customers to use that service to access the Internet, doesn't it today?

A. I'm not familiar with them.

Q. The example that I have got in mind is the marketing of additional lines. Are you familiar with marketing of additional line service for use of the Internet?

A. Not specifically, but I'm willing to grant you that selling -- that that's a logical thing for a firm to do. However, that's --

Q. Now --

A. Let's make sure we're talking about the right thing. That's marketing a line. That's not part of the decision that, you know, I would make if I'm a customer whether to make a call or not to the Internet. I mean I'm looking at the per call rate, not the line price.

Q. But in terms -- I mean the thing is let's -- a customer sees an advertisement, if you assume a customer sees an advertisement that Qwest has placed, it says purchase an additional line and free up, you know, for your computer so that your first line is freed up for your local calls.

A. Sure.

Q. Would you agree that that customer may very well purchase that additional line in order to use that line to access the Internet?

A. Absolutely. My only point was that when the customer sits down to actually make that call on his second line that Qwest has sold him, what service, the relevant question is what service is that customer using. Does the customer think it's using Qwest local exchange service, how much is it going to cost me, or does that customer think, hey, AT&T or AOL or whatever, that's the service I'm using when I'm sitting down at my keyboard.

Q. When the customer makes the call or actually accesses the Internet, you're discussing the fact that that customer is thinking, I'm purchasing Internet service at that point?

A. Correct.

Q. Now isn't it also -- wouldn't it also be fair to say that when -- let's talk about a credit card verification company example and a subscribe -- and a customer that subscribes to the services of a credit card.

A. Department store.

Q. Department store, good example. Now that customer when the communications lines are used to access that credit card verification service is thinking at the time they subscribe to that that that's the service that they're purchasing, wouldn't you agree, just very similarly to the way the end user who wants to access the Internet thinks when they dial up to access the Internet?

A. Almost, but there's one sort of important distinction, and that is that the credit card service when I dial them up, that's all I get. I mean it's not that they're a communications company through which my message goes out to wherever I want to send it. Rather it's like dialing up Lands End or something to get a shirt, it only goes there. So it's an end user in that sense rather than like a long distance carrier, somebody who just passes the message along to its intended place, and that I sitting back on my computer am sending my message not to the credit card company or to the ISP, I'm sending my message to Lands End.

Q. And it's your testimony that a credit card verification company or service never goes beyond itself in getting the information necessary to actually verify that their credit card is --
A. Oh, no, it may well do that. But when I'm -- if I'm a department store, which is hard to imagine, but if I were, that's all I get when I go down that particular line. When I dial that number, I get that piece of information from the credit card company. It may have taken them lots of other calls and all of that to put the information together just like it takes a pizza parlor a whole lot of effort to put together the pizza that I will then access with my call to the pizza parlor, but that's very different from the role that a long distance carrier plays when it passes through a long distance call or that an ISP plays when it passes through my call to wherever I want to send it.
Q. Okay. Just so we are clear about the end to end call, in the case of an ISP, it's true that what happens is that the originating ILEC subscriber places the call, and that call is carried on the circuit switch network to the ISP's presence in the local calling area; do you agree?
A. Yes.
Q. And the ILEC may deliver that call directly

to the ISP, or a CLEC may be serving the ISP and it is carried, terminated by the CLEC, correct?
A. Well, terminated is a loaded word, so why don't we just say --
Q. Delivered.
A. Delivered, yes.
Q. Then the ISP, when the ISP takes that call, the ISP does not carry the call beyond its local presence on a circuit switch network, does it?
A. Not on a circuit switch basis, that's correct.
Q. But rather on a packet switch basis?
A. Certainly, the function of a message, my message being passed to Lands End, doesn't end in any sense at the ISP.
Q. In contrast, when a long distance call is carried and that call is delivered by whatever carrier delivers it to the IXC point of presence, the IXC then will carry that call forward on -- continue to carry that call forward on a circuit switch network?
A. Some do, some don't. I mean there are packet switched networks for voice service which you access in the same way that we have been speaking of. That is a circuit switch connection to the carrier, carrier sends it around the world or wherever it goes on a packet

switch network, and then at the other end it goes off again on a circuit switch network. That's not unusual.

Q. But you would certainly agree that traditionally interexchange carriers have carried, historically they have carried that call largely on a circuit switch network?

A. That has been the technology until packet switching came in not very long ago in history.

Q. Okay. Now you mentioned the fact that termination is a loaded term. You would agree that the appellate court in remanding the ISP decision to the FCC stated that the fact -- stated in its decision that the fact that the ISP -- or disagreed that the fact that the ISP originates further communications beyond itself implied that it did not -- that the call did not terminate at that point?

A. It may well have, you would have to point me to exactly where it says that. But then it must be using terminate in a very narrow and technical meaning. Surely none of us think that in the ordinary English language sense of it that the message stops at the ISP. The ISP doesn't care about my shirt from Lands End or my books from Amazon.com. It doesn't even know about them. It simply passes them along. The sense in which the message terminates at the ISP has to be a very narrow one if that's what the court or you, if that's the usage you want to make of the word, that's not the ordinary English language meaning.

Q. But isn't it true that when the circuit court of appeals was using the term terminate, it was using the term terminate as it was being advocated by the CLECs in that case. I mean based -- for purposes of reciprocal compensation, they were using the term terminate as they thought the FCC should have used the concept terminate, that the local call terminates where the -- for purposes of the analysis of whether this is local or interstate, the call terminated at the ISP; is that right?

MR. DEVANEY: Your Honor, at this point I'm going to interpose an objection on the ground that we're seeking as I understand it a specific interpretation of what the D.C. Circuit meant by a word in its opinion. And admittedly Dr. Taylor addresses the decision in general terms in his testimony, and that's why I haven't objected so far. But at this point, asking for an interpretation of a specific word in a decision is one that I think is improper, calls for a legal conclusion, and also really would call for Dr. Taylor to analyse the specific context in which the word is used. So on those grounds, I object.

MS. HOPFENBECK: Your Honor, this witness has testified as to his interpretation of the Court of Appeals decision in his opinion, and he advances that interpretation in order to argue that the end to end analysis is still valid. I'm just asking him his interpretation of other aspects of the decision. If he doesn't have an interpretation or can't -- I was going to hand him the document, and he can look at it, and I was going to produce copies to the Bench at this point, because he obviously needs that in order to reference. But I think it's an appropriate line of inquiry for an expert who is using this decision as the basis of his opinion.

(Discussion on the Bench.)

MS. HOPFENBECK: If I could interject, I mean what I was going to do at this point is actually just hand him the document and read from the document as opposed to having him render an opinion at all. I will withdraw that last question. I think that's the easiest way, and that will conclude this line of inquiry.

JUDGE BERG: All right, let's do that.

BY MS. HOPFENBECK:

Q. Dr. Taylor, I have included page numbers at the bottom of this decision since it's not a published decision for ease of reference, and I direct you to page eight of this decision.

MS. HOPFENBECK: Oh, sorry, I should know that it's published, but --

CHAIRWOMAN SHOWALTER: It is published.

MS. HOPFENBECK: It is published, and I don't have the publication, so my apologies. I got this, I think, before it had been published.

BY MS. HOPFENBECK:

Q. At any rate, I will direct you to page eight of this copy of the decision, and in particular to the second full paragraph on that page, about two thirds of the way down.

A. Yes, would you like me to read something?

Q. Yes, if you would just begin with once again.

A. (Reading.)

Once again, however, the mere fact that the ISP originates further telecommunications does not imply that the original telecommunication does not "terminate" at the ISP. However sound the end to end analysis may be for jurisdictional purposes, the Commission has not explained why viewing these linked telecommunications as continuous works for purposes of reciprocal compensation.

Q. Thank you. Now in your discussion of the ILEC to CLEC interconnection model towards the top of page 18 of Exhibit 1120, you discuss the fact that in the local arrangement, both parties recover their costs, and the cost causer is billed for the entire cost he or she causes both carriers to incur. That's at lines three through five.

CHAIRWOMAN SHOWALTER: Which page?

MS. HOPFENBECK: Page 18 of Exhibit 1120.

A. Yes.

BY MS. HOPFENBECK:

Q. Now that does assume that the subscriber's calling patterns, assuming voice calls, follow sort of the typical -- I mean look like average calls, average voice calls, doesn't it?

A. Well, it does if you take this extremely literally. I guess what I mean by this is there is a mechanism by which on average, a regulatory mechanism or a market mechanism, by which prices are charged, which in the long run ought to recover costs. That's all I mean by it.

Q. And those prices are the prices that are set for local exchange service; is that right?

A. Yes.

Q. And then the reciprocal compensation mechanism that's been established in order for carriers to compensate each other for the functions that they perform in carrying those costs, correct?

A. I think so, yes.

MS. HOPFENBECK: Okay, that's all I have, thank you.

MR. TRAUTMAN: Staff has no additional questions.

E X A M I N A T I O N

BY DR. GABEL:

Q. Good afternoon, Dr. Taylor, I have a few questions for you. First, there's been some discussion in this proceeding about what are the load characteristics of ISP traffic as opposed to ordinary voice traffic. Are you aware of any studies that present evidence on the load distribution of voice traffic versus Internet traffic?

A. Yes.

Q. And could you explain what those studies have shown and where those studies are to be found?

A. I can, except for confidentiality. That is the one study I'm familiar with is on the record, I believe some of the results of it are on the record in

Texas. Texas had a mega arbitration on this subject about a year ago, maybe two years ago now, and SBC performed a cost study and a traffic study of ISP bound traffic using its own data. And that data and that study was on the record, and that's at least the one place where I have actually seen data that tell me roughly what the load distribution at least in Texas and at least for one month in 1998 or so looked like.
Q. Mm-hm.
A. The logic that's in my testimony, I was moderately careful, and Dr. Blackman was careful to point out how careful I was, to say there were ifs in there. That is there are reasons to think why the load distribution might be flatter than for voice traffic, mostly going around the weekend. And I don't know what it's like in your house, but in my house on the weekend everybody is on the computer; during the week, everyone is at school or at work. And that fact, that hypothesis I guess, that's one reason for thinking that the load distribution might be flatter.
I think it's also important to be careful that it's not really the load distribution just of ISP traffic that we care about. What we care about, if we're measuring costs by what the ILEC's costs are, what we really care about is what happens when you add the

ISP bound traffic to the load that's already on the ILEC switch.

So if the load characteristics of ISP traffic were identical, for example, to the current load distribution, that would be the worst case, because that would put -- I guess that wouldn't be the worst case. The worst case would be if every ISP minute were at the peak hour. But it would be a bad case, because it would accentuate the peak as opposed to if it's different. If it has a different peak, for example, that's a good thing, because that tends to flatten the aggregate peak when you add the two distributions together. So that's the sort of thing --

Q. And the implication for determining the costs of terminating an ISP bound call is that if you have a flatter load curve, you effectively have a lower cost per minute?

A. Yes, I mean really what it means is that a smaller fraction of these minutes which we divide total cost into are going to occur at the peak and thus will carry no capacity costs with them if you're being careful.

Q. Following on that point, if you're willing to assume that currently the Commission has established a traffic sensitive switching rate based upon identifying

the busy hour cost and then spreading that out over all minutes per year, is that your understanding in general how rates and costs per minute are generally established?
A. Yes.
Q. Okay. And is it also your understanding in this proceeding that Qwest has not proposed a rate structure where there is a separate setup charge and a separate per minute rate?
A. Yes, that's my understanding.
Q. All right. And is it your understanding that Qwest has proposed figuring out what would be the average cost of terminating a call to an ISP based upon the average length of a call to an ISP, and in making -- and in doing that calculation, the calculation would separately identify the setup cost and the per minute cost?
A. Well, what you say is correct. I'm not sure that characterizes Qwest's position. You better check with them. My understanding of Qwest's position is that they don't want reciprocal compensation at all. That's the thrust of most of my testimony. Given or if it is the case that we are to have reciprocal compensation, I think probably everyone agrees that the closer that rate gets to cost, let's be deliberately ambiguous about

whose cost for a moment, the better off we are.
And in that sense, separating the initial minute from subsequent minutes is a partial solution to one of the problems that I raise. It doesn't help the load distribution question. For that, you would have to propose time of day pricing. Maybe that's a good thing or not; I don't know, and it doesn't solve the other I think two cost differences that are in my testimony.
Q. Well, first, thank you for correcting me on the Qwest position. But on this issue of there's a setup cost for the first minute and then a subsequent per minute rate, if in the end of the day we first identify the setup cost and then the per minute cost, and then we assume that an average ISP call is for 30 minutes in length, and then we establish a rate that's just based upon a per minute charge, but it's based upon the assumption of a 30 minute call, do you -- I'm --
A. Well --
Q. Where the -- where the per minute rate averages in the setup charge and the per minute rate, my question for you is, could you explain in your opinion does this improve economic efficiency to -- if at the end of the day we don't have a separate setup and a separate minute charge, does that improve efficiency, and if so, why?

A. I believe it does if I understand what you have said. If what you have said is separate out ISP bound traffic, assume that all ISP bound traffic has 30 minute holding times, and then calculate the per minute charge for a 30 minute call, and then charge all ISP traffic at that rate whether it's 30 minutes or 10 minutes or 40 minutes, and the answer to your question then is yes. Under that circumstance, that is one step towards having a separate first minute and subsequent minute charges, which might be a more efficient way. It might track costs more closely, but then that might be a more difficult thing to bill or to explain to customers or something like that. But it does get at the difference between the cost of a 30 minute on average holding call as opposed to a 3 minute or 4 minute voice call.

Q. Now on this topic of identifying setup costs, are you aware of any cost models that measure setup cost?

A. Yes, I thought they all did. That is ones that I'm familiar with, and I'm not familiar with the Qwest cost studies, but I do work for other companies. SCIS, the usual switching cost model, produces separate setup costs and holding time costs. So at least for the world that uses SCIS, that's a readily available cost.

Q. And SCIS is a model that you're familiar with and you have defended, for example, in other forums?

A. Yes, it was -- originally comes from an old AT&T model handed off to what was Bellcore, now Telecordia, and it is one of the standard costing tools that local telephone companies use. I would be surprised if other competing cost models didn't look separately at setup and duration, just because that's the way the costs are incurred. Now they may not report them separately in a convenient way, which SCIS does, but I would be amazed if a cost system couldn't be made to produce a setup cost and a duration cost.

Q. Based upon your knowledge, I would like to focus on the switching cost information system, based upon your knowledge of the switching cost information system, SCIS, could you explain how SCIS develops the setup costs? For example, is it based upon an allocation of the getting started investment of a switching machine?

A. I think the answer to your last question is no, or at least I would be surprised if it did, because SCIS run in its incremental cost mode isn't going to be allocating getting started costs that I recall. How it costs it out, that is setup as opposed to duration, is looking at, and I'm sorry, I'm not up on SCIS at the moment, but as I recall, looks at the parts of the switch that are used in setting up a call and then which go away. So that's got part of the SS7 stuff is involved in that, the stuff that processes SS7 signals, as opposed to the duration costs which are just holding open a path through the switch.

I haven't said that very well, but there are different functions in the switch that correspond to setting up the call as opposed to holding the call, and my understanding of SCIS is it measures those two costs, the costs of the facilities that are used for that just separately.

Q. Just, you know, I understand in your last response, Dr. Taylor, you said that you are not perhaps up to date on the switching cost information systems, so if we want to -- if you want to drop this line of inquiry, it's fine with me. But I just want to lastly focus on why, if SCIS isn't running in the incremental mode but rather the average cost mode, why you would think it may or may not be appropriate to allocate the central processor costs based upon milliseconds to activity of setting up calls?

A. No, my understanding of SCIS is really limited to the incremental cost mode, because that's sort of all I believe. If you ran it in an average cost mode from, I have had no experience in doing that, but I would take it that what it's trying to calculate is explicitly an allocation of all of the costs, including the getting started costs of the switch, and there's no reason not to, that I can think of, allocate those to every function that the switch performs.

On the other hand, when I'm done with that, I have an average cost, and as an economist, I don't know what to do with that animal. I'm much happier with an incremental cost, because I know what that means. That means what the additional long run cost I'm going to get if I run another call or another minute through the switch. And for the average cost, I'm not sure what I'm getting.

Q. For purposes of TELRIC, does it make more sense to use incremental or average cost, because I -- what the question is implying is I guess I would like you to address that if you use incremental, how does the company recover its costs that aren't part of the incremental cost but are part of the total costs?

A. Well, they don't do it on a cost basis. I mean you and I have had this debate for many, many years, but the recovery of total costs either of the switch or of the firm beyond the direct causal incremental costs is something which isn't done in the real world on a cost basis. That is, demand comes in, markets come in.

There's a reason why the markup on Cadillacs is much bigger than the markups on Chevrolets, and we can't infer what even a competitive automobile market or reasonably competitive automobile market produces solely on cost grounds. You know, you and I can stare at the cost function for producing cars, and we're never going to come up with the relative markups that the market has told us a Chevrolet commands and a Cadillac commands. And that's as true of switches as it is of automobiles.

Q. But for switches, if this Commission is to establish prices that are TELRIC based prices and if you're using SCIS to produce incremental estimates, my question for you is, then where do you recover the fixed costs that aren't part of the incremental costs? Do you do that as a common cost markup, or is it a direct assignment to the switching elements?

A. Well, I can't speak again for Qwest, because I'm not familiar with what their TELRIC studies look like. The ones that I have testified to for other jurisdictions do base costs on incremental costs, usually using SCIS, and then take a markup for shared fixed and common costs, as the FCC First Report and Order instructs them to. We then have a largely non-economic debate about what the size of that markup ought to be, but that's again just the question of is this more a Cadillac than a Chevrolet, and costs are not the answer to that question.

DR GABEL: Thank you.

JUDGE BERG: We'll take a 15 minute break, be back at 3:25.

(Recess taken.)

JUDGE BERG: We will pick up with concluding questions from the Bench.

E X A M I N A T I O N

BY CHAIRWOMAN SHOWALTER:

Q. All right, I have just a couple of questions. One is regarding Exhibit 1120, page 48.

A. Yes.

Q. And it's about your sentence on lines nine and ten. And you make the point that you think the LECs would have an incentive to avoid competing to serve customers that I take it are the customers who would use the ILEC's, the ILEC's or the LEC's, the ILEC's system to make an ISP call; is that right?

A. Yes, I believe that the incentive for a LEC, ILEC or a CLEC, is to avoid customers who are likely to make dial up Internet calls.

Q. Okay. And my question is, in this situation, wouldn't an ILEC at least have an incentive to gain the ISP type business of its own customers, that is for the very reason that it might not want just the voice customer because it would have to pay that cost, in order to avoid having that situation, it might want to get that customer as an ISP, not an ISP, as an Internet customer?

A. Yes, that's certainly true, but there are a couple of things going on in that kind of competition. The first is that the ILEC generally isn't also an ISP. I mean it has it as some kind of affiliate of a holding company or something like that. And sure, it's better off if its affiliated ISP has all of the customer -- all of its end users as customers so that none of its local exchange customers are making calls to a CLEC's ISP.

I don't know that there's a mechanism, a market mechanism that works through the customer side to make that happen. That is, for Qwest or the ILEC to subsidize its ISP affiliate, that's probably a nasty word already, in order to enable them to lower the price to their customers, the ISP's customers, in order that all of those customers remain with the Qwest ISP, I don't think that would work terribly well.

The other way that your comment I think has some -- has some interest is in competing for ISPs. That is, Qwest has the same incentive you would think to get ISPs as customers, because that way also Qwest's subscribers won't be calling ISPs served by CLECs, because Qwest has all the ISPs. So that too is another kind of distortion that this world creates.

And I think you're right that Qwest has an incentive, whether they can act on it or recognize it or not, to serve as many ISPs as they can irrespective of whether they're making money simply looking at their books. Because by doing that, they're paying less reciprocal compensation to CLECs. Surely the reciprocal compensation part of it should be part of that calculation.

I think all of that is true, but look how distorted forms of competition we have here. I mean I don't think that's what we really want to see, because all of that is involving -- in the long run, we're arguing about how the subsidy to Internet access is going to be -- who is going to pay for it. And do we want Internet users ultimately to pay their own way, or do we want directly or indirectly telephone subscribers to pay for that subsidy. And I think that's the distortion that's at the bottom of all of this.

Q. Okay. But the distortion can cause

incentives going two directions even though it remains a distortion?

A. Sure.

Q. You have made out a pretty strong case that ISPs are more like long distance companies, and that therefore there should be -- there should be an access charge or an access like charge. But I think you also concede that's not about to happen, at least the access charges.

A. Yes, it is certainly true that in our lifetime one will not have carrier access or switched access billed to an ISP. But we have to be careful, ISPs do pay an access charge today. I mean it's not per minute, and it's not out of a switched access tariff, but the ISPs that CLECs serve pay a rate for basic exchange or local exchange service that's market determined. So they pay money, call it what you will, they pay money to CLECs and to ILECs to get access to the network.

That money isn't like switched access, because it's not per minute, and it's not regulated, blah, blah, blah, and the ESP exemption says you've got to -- that's got to be part of the local tariff, so you have to offer that to everybody I guess, not just to ISPs. But that payment does have the same function that access charges serve for long distance carriers.

And whether that's enough money or not to cover the costs, we don't know. I mean we haven't seen -- nobody has -- no one in the country, I think, has produced a viable CLEC cost study to say that whether or not they're making money in aggregate from the money they take from the ISPs, whether that actually covers the traffic sensitive costs that they get.

Similarly for Qwest, for ILECs, I don't know, though maybe Qwest does, whether they make money on their ISP access business. That is, they charge the local exchange, the basic -- the local PRI rate, for example, to the ISPs that they have. Is that enough to compensate them for all of the traffic sensitive costs that we're talking about here that are involved when their customers and CLEC customers access their ISPs? I don't know, it might be enough.

Q. Okay. But if we assume that access charges are off the table, then I guess I would like to compare two propositions. One is the combination setup plus per minute charge from the CLEC to the ILEC, which I recognize reverses the way the money goes from what you would have it do, but it does cover some costs, and compare that to a bill and keep. And assume that the setup charge, setup plus per minute charge is quite

accurate, not even on a 30 minute average, just we actually figure out what the appropriate setup charge is and the appropriate per minute charge, and maybe it even declines over time, over number of minutes. I don't know, but just assume it's pretty accurate. How would you compare those two modes first as to capturing costs one way or the other, and then second as to incentives, incentives for behavior?
A. Okay, well, let's do capturing costs first. By design, let's assume that the setup and duration accurately reflects the cost of whom, of the ILEC, is that what we have in mind?
Q. Yes.
A. There are two possible costs.
Q. Right.
A. It could be the costs of the ILEC; it could be the costs of the CLEC.
Q. Well, I guess since I'm trying to root this in some of the actual proposals, it would be of the ILEC, and it might be the avoided costs of the ILEC.
A. That was going to be my next question. I don't think anyone has ever proposed that it be the avoided costs of the ILEC. All of the studies that we do for transport and termination are not avoided costs; they are the incremental costs. And it's very different

in this case, because the costs that an ILEC avoids when a CLEC takes over serving an ISP have very little bearing or are not really related too much to the costs that the ILEC has when it serves -- when it serves an ISP.
I have in mind the following. Suppose you had an ISP that was served by Qwest and then one day decided it would make more money if it were a CLEC. So that's all it does, it fills out the papers, it does whatever the Commission requires, and it becomes a CLEC. But it doesn't move its location, it receives traffic from Qwest exactly the way it did before, but now instead of paying Qwest for access service, it is receiving reciprocal compensation from Qwest. And Qwest's costs in this example are exactly the same, so Qwest saves nothing. There are no avoided costs in a case like that.
Similar case, if the ISP served by the CLEC and if the CLEC takes service directly from a Qwest end office, Qwest doesn't save any switching function. So there are no -- there's no switching in the avoided costs.
Q. Oh.
A. My point is simply that avoided cost is very, very different from the kind of TELRIC switching and

transport costs, which is what we have been talking about here.

Q. All right, well, then let's not do avoided costs.

A. Let's not do avoided costs, yes, I agree.

So we're looking at what Qwest's incremental costs of switching and transport are, or termination, transport and termination are, and we're assuming we're going to measure that accurately. So for efficiency, we would have to ask -- then ask how does that payment which would go to the CLECs relate to the costs that the CLECs incur.

And, you know, my testimony describes some reasons why I think those might be lower. If they are lower -- if they're the same, then fine, then we have at least the CLEC in this story is getting what it ought to get, namely its forward looking incremental costs for carrying the traffic, and nothing more. But if they aren't, then we have the incentives to distort competition and to invent traffic and all the sorts of bad things that are mentioned in my testimony.

And I guess one of the big problems is --

Q. But only to the degree that is the case, that the payment exceeds --

A. The costs are wrong.

Q. -- the CLEC's costs?

A. That's correct, except one other element makes that a little more serious, and that is the fact that the traffic is essentially all one way or largely one way. That is, when we invented reciprocal compensation for ordinary local traffic, I think in the back of everyone's mind was that CLECs and ILECs would serve the same mix of traffic, and the traffic would be roughly balanced. And if that's the case, you don't care if there's a small error one way or the other in the reciprocal compensation rate compared with the cost, because it will balance out.

But where the traffic is essentially all one way, it's kind of a knife edge arrangement, and if you miss the -- if the rate that CLECs pay is lower than their costs and we have this flood of Internet traffic growing over time --

Q. You mean the rate the CLECs are paid is lower than the costs?

A. Are paid, yes, sorry, lower than their costs, is higher than their costs --

Q. Is higher.

A. -- then they have every incentive to increase traffic, and vice versa if it happened to go the other way.

Q. All right, but that's -- so that's true, but now compare it to bill and keep. In bill and keep, it also seems that you might assume there was two-way traffic or at least some kind of balance.

A. Sure.

Q. Which I think you're assuming there is not, or you're oppositing there is not.

A. Well, bill and keep has, the way I look at it, is obviously not perfect either. The ILEC has to get whatever its costs of carrying the traffic to the CLEC point of interconnection are from its local exchange customer, and if these cost characteristics are very different than for ordinary voice traffic, that poses a regulatory problem. The CLEC has to get its costs from its customer, which is the ISP.

Well, it is restricted by the ESP exemption, so it can only charge essentially flat rate charges that appear in its local tariff. That doesn't, you know, that doesn't mean it can't get all of its costs, even including the costs of serving all of this traffic sensitive -- of these traffic sensitive minutes which are coming at it, but I grant you that it will be inefficient because it will be billing ISPs a flat rate, and some of the costs are these traffic sensitive costs from Qwest subscribers reaching the Internet.

Q. Well, is it fair to say that in either case, either of those models may not be perfect in all cases?
A. Right.
Q. And so but bottom line, do you think that one is less imperfect than another or preferable to the other?
A. Yes.
Q. And if so, why?
A. Right, I mean I think my testimony goes through a litany of impractical methods which don't work, and I come to bill and keep before I come to reciprocal compensation. Yes, I think bill and keep is probably more efficient, a more efficient way for both CLECs to recover their costs from their end user, from the ISP, and for ILECs to recover their costs from their end users, the telephone subscribers, mostly for I guess for two reasons.
I mean one is I think the incentives are better. Bill and keep's bad incentives are that if you're a CLEC, you don't get any additional revenue to cover the calling that comes in except the revenue that you can get from your ISP customer generally on a flat rate basis. So that's the inefficiency that they face.
On the ILEC's side, the world is a much better place in the sense that they may have a similar

problem recovering their costs, because they have to haul this traffic all the way to the point of interconnection, and that's not built into their local tariffs typically. On the other hand, they're not writing a check. Yes, they may have some costs they can't recover, but they don't have the additional payment on top of that for costs that they do not -- may not save 100%.

The other point I think is that I think we would all leap to bill and keep from an efficiency basis if traffic were balanced. And I think the point is that traffic is either balanced or not balanced depending upon what we do in this docket. I mean we have an incentive now under reciprocal compensation for CLECs to seek out ISPs because compensation is such that it's a very profitable thing to do.

Q. But I guess I'm -- you're comparing bill and keep to reciprocal compensation, but there are variants of reciprocal compensation that are different from what we have today, and that's why I really want you to focus in your comparison to the type of reciprocal compensation that's been proposed. That is a setup charge plus a per minute that I want you to assume is fairly accurate.

A. Oh, okay, so under the assumption that --

well, I think we're still in the same position. Even under the assumption that the setup and duration charge accurately reflects the costs of the ILEC, there's still, my testimony says, other reasons why even if you got setup and duration right, you don't have all the other costs, cost differences that make costs lower for serving specialized traffic with the load distribution one to one switching concentration that this ISP bound traffic has.

However, even if suppose we drop all of that and take the leap that says these costs are accurate for CLECs, so you've got a price or a rate structure for reciprocal compensation which accurately reflects the CLEC cost structure, and so they're going to get their money back under reciprocal compensation. Under that scenario, the inefficiency that remains compared to bill and keep is that the ILEC is still paying -- is still paying too much. It's not that the CLEC is receiving too much, it's that the ILEC is paying too much or incurring too much cost.

It incurs the costs that it always incurred providing local traffic, but in addition, in those circumstances where it is actually paying reciprocal compensation and not saving anything, that its costs don't -- are not reduced, the example being when an ISP simply metamorphosizes into a CLEC, an ISP changes to a CLEC and no costs are saved, the ILEC in a reciprocal compensation world, even if the price is right in the sense we discussed, is still paying too much. It's got all of its own costs, plus its got reciprocal compensation, which is more than whatever costs it saves, which is zero in our case, so we have that additional source of inefficiency.

For bill and keep, today where CLECs have an incentive to take one particular type of traffic, you would have a large distortion until such time as the pendulum swings. That is, the flow of traffic, whether the traffic is balanced or not, is a function of what we pay in all of this. And, you know, under bill and keep, there no longer is an incentive for CLECs to seek out customers who have lots of terminating traffic.

Maybe an equally distortion there, there's another incentive for them under bill and keep to seek out customers who have large amounts of originating traffic, sort of the opposite one, but that's okay, because that's the end on which we actually charge people. We charge people for originating traffic; we don't charge them for terminating.

CHAIRWOMAN SHOWALTER: Thank you.

E X A M I N A T I O N

BY COMMISSIONER HEMSTAD:

Q. Well, Chairwoman Showalter has really covered much of what I was going to pursue. You have your second alternative, your second best of revenue sharing as you described it, has that been done anywhere?

A. No, not to my knowledge. I'm not -- well, I'm not sure why not, except that it looks bad. I mean in the sense that CLECs generally come in and argue, you know, we're not getting recovery for our traffic sensitive costs, and if a Commission were then to turn around and say, well, we have thought about it, we like this revenue sharing solution, and what we're going to do for you is we're going to take some of the revenue that you already get today from your customers, from your ISP customers, and we're going to give that to the ILEC, you know, that's sort of brutal, I guess. It's efficient for the very reasons that are in my testimony, but it goes against the sort of perception that what we have here is a CLEC problem and not an ILEC problem.

You know, I disagree, I think it would be a very reasonable thing to do. I don't think we have seen anywhere a showing that CLECs don't make enough money from their ISP customers to cover the total costs of the ISDN PRIs that they sell to them plus the traffic

sensitive costs for all the calls that come in. You know, I don't think we've ever seen a study that says that goes one way or the other, so, you know, I'm not sure it's a bad thing. But it certainly -- it certainly would be a revolutionary thing, let's put it that way.
Q. Okay. I'm looking at page 57 of Exhibit T-1120, the last page and the last sentence:

> In my opinion, because it is not based on cost causation, reciprocal compensation should not be an option at all.

Well, Dr. Blackman, as I understand his proposal, is premised on, well, we can tinker with this until we get the prices right. And if we get the prices right, then the competitors out there will do their thing without distortions. Is it your position that if we get the prices right by tinkering with reciprocal compensation that it still would not be based on cost causation?
A. Yes, I think it is. Some of the reasons that we discussed with Chairwoman Showalter. First, what is the right price? Is it the cost that the ILEC incurs when it carries the traffic, is it the cost that the CLEC incurs, is it the cost that the ILEC saves when the CLEC comes in. Those are three different cost things at

which you could set reciprocal compensation prices.

Q. Okay, but can't you tinker with that?

A. Well, you could tinker with each.

Q. Right.

A. I bet this Commission is clever enough to find a way to set a rate which equaled any one of those three, but those are three different numbers. So there's no way you could find a rate which would equal all three of them, because they're different. That's one side of it, that's the make sure the CLEC is compensated correctly side.

There's still the ILEC side of it. We have the ILEC who suppose an ISP is sitting out there served by Qwest, and then, well, how does it get its traffic to it. It's a Qwest customer, it buys access service from Qwest, it buys FX lines, it buys 800 numbers, things so that you and I all over the state can dial a local call and get into that ISP, and the ISP pays Qwest for that.

Okay, but then suppose that Qwest becomes -- the ISP becomes a CLEC, overnight everything changes. Suddenly Qwest has to deliver all of the traffic to the CLEC point of interconnection. It's not -- the payment doesn't go anymore. So Qwest is now in a very different position as far as recovering its costs than it was a minute ago when this creature was just an ISP. When it became a CLEC, Qwest suddenly lost a whole lot of revenue and no costs.

What do we do about on Qwest's side of it? Well, the answer there, what tariffs do you have, you've got the basic exchange tariff. That is, you can tinker with what you charge local exchange customers for usage. You could raise that price if you had to or lower it or whatever would be necessary to make it track costs, but that would involve at the end of the day all telephone customers paying for these additional costs caused by Internet usage. Now maybe Internet usage is either so important or so ubiquitous that it doesn't matter much, but that's another inefficiency, sort of an inescapable inefficiency that you're going to have on the Qwest side of this.

So I mean I think Dr. Blackman is right theoretically, that if you got exactly the right prices on both ends of this, you would have an -- you could create an efficient reciprocal compensation system, but I don't think it's possible to do. Because you have three different cost characteristics on the one side, and you've got two different sets of customers on the Qwest side, and you don't necessarily want to bill everybody for the costs of Internet access.

Q. Okay, but so you conclude that a bill and

keep third best solution is the closest then to the cost causation on both sides; is that a fair proposal?
A. Yes, I think it has cost causation right, the idea that the ISP is the or his customers are the cost causers, and I mean where it's inefficient is that it has the prices wrong, just as reciprocal compensation does. That is, on the CLEC side, they're getting money from the ISP on a flat rate basis constrained by the ESP exemption that may or may not be enough to cover all the traffic sensitive costs. And on the Qwest side or the ILEC side, they have the same problem, that they're going to get their cost recovery from basic exchange customers. They're their only customers.
Q. Is the consequence of the ESP exemption that the CLEC can't charge the ISP at a different rate from other customers; is that --
A. Well, I think that's right. I'm sure that's right for ILECs. That is, ILECs I know at least must charge ESPs out of their local exchange tariff. What -- how that pertains to CLECs, I don't know if that's a legal requirement, but of course it's an economic requirement in the sense that if after the dust settled it was cheaper to go to -- for an ISP to go to Qwest including reciprocal compensation payments, they would. So that's an obvious constraint.

Q. So if they charge the ISP, from your perspective, the true cost, and here by filing a price list that would be higher, then they would all gravitate to the ILECs?
A. That's a constraint on the business, that's correct.
COMMISSIONER HEMSTAD: Thank you, that's all I have.

E X A M I N A T I O N

BY CHAIRWOMAN SHOWALTER:
Q. I forgot to ask a question about the revenue sharing proposal.
A. Sure.
Q. And how is it distinguished from an access charge in a legal sense, I guess? It sounds to me as if it's requiring the CLEC to hand over some money to the ILEC.
A. Oh, sure.
Q. And therefore, is this just a theoretical idea on your part?
A. No.
Q. Or do you think it's actually doable under the law?
A. Oh, well, it's doable under the law. It

certainly doesn't, excuse me, from an amateur economist point of view, it's doable under the law.
Q. That's all right.
A. Because the ESP Exemption deals with what ISPs have to pay to get access to the network. This doesn't deal with that at all, it deals with what the ILEC or the CLEC does with that money. And it's certainly practical, because you do that in long distance as we speak. This example is one that's been used historically all the time, particularly when you have say an independent telephone company. You have many here in Washington, I think.
Q. Yes, we do.
A. Many of which do not have points of interconnection with long distance carriers. So if I'm a customer in their territory, I dial AT&T, who is my long distance company. That call goes from my ILEC generally to Qwest and then to AT&T. Qwest bills AT&T carrier access charges, takes the money, and splits that with the originating ILEC on some proportion. It's either meet point billing or some sort of cost sharing arrangement.
And that's exactly what we're talking about here. The call originates with -- the ISP bound call originates with a Qwest customer. Qwest hands it off to

the CLEC. CLEC hands it off to the ISP, bills the ISP, not carrier access because that would be wrong, but for the ISDN PRIs. And so whatever revenue they get, however they get it --
Q. The they at this moment being the CLECs?
A. The CLECs, sorry, yes, the CLECs get whatever money they get from the ISP, take that, split that with the co-originating ILEC in this case on either a meet point basis or a cost sharing basis or something like that. I mean it's the way that co-origination of long distance traffic has been done for years.
CHAIRWOMAN SHOWALTER: Okay, thanks.
THE WITNESS: Sure.

E X A M I N A T I O N

BY DR. GABEL:
Q. Dr. Taylor, I just want to follow up on this question. You were asked about the revenue sharing proposal that's in your testimony and the legality of it in light of the ISP exemption from paying access fees. And did I correctly understand you to state that you didn't feel that it would violate that law, because the revenue pooling proposal that you had made deals with sharing revenues, not with the charges to the ISP?
A. Yes, that's correct. The ISP has the right

to buy access to the network out of the local exchange tariff, and nothing stops it from doing that.

Q. Okay. Is it your position, Dr. Taylor, as an economist that if you take the existing price that is received by a CLEC and then because now it has to hand some of that to another party, some of that revenue to another party, that that would have no impact on the retail revenue to ISP customers? I'm asking now that the CLEC is sharing its revenue, and as opposed to keeping 100% of the revenue, as a matter of economics, if there is revenue sharing, is it your position that revenue sharing has no impact on retail price?

A. Oh, no, it will have a -- two things will have a big impact. One will be the cessation of reciprocal compensation payments. That by itself will cause the PRI rates to rise. They have been reduced up until now because the contribution from reciprocal compensation is built into them. So PRI rates go up.

And the requirement that they be shared means that the incremental revenue to the CLEC is going to go down, so they will go up even further in order to get an industry equilibrium where a marginal revenue is equal to marginal cost, and average revenue is equal to average cost for the ISP access market.

Q. And so after you have completed those steps, the ISPs end up paying a higher price as a result of the revenue pooling?

A. That's correct, and what do we expect would happen? The game doesn't end there. ISPs compete for customers in a reasonably competitive market. One would expect those, the prices that you and I pay, the $19 a month to AOL, could go up.

Q. Okay.

A. But that's rationalizing the ESP exemption, which to date, people who use the Internet don't have to pay for. And if we did this, they would have to pay for it.

DR. GABEL: Thank you.

JUDGE BERG: Additional cross?

MR. KOPTA: (Shaking head.)

MS. HOPFENBECK: No, thank you.

JUDGE BERG: Redirect, Mr. Devaney?

MR. DEVANEY: Yes, I have several follow ups, thanks.

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

BY MR. DEVANEY:

Q. Dr. Taylor, at one point during the discussion you had over the last half hour or so, you said something to the effect of this whole predicament

that we face arises from the subsidy of Internet?
Access and the question is who is going to pay for it. I take it you were referring then to the ESP exemption; is that right?
A. Yes, that's correct.
Q. And now the ESP exemption prohibits both CLECs and ILECs from collecting access charges from ISPs, and as a result that prohibits them from, both parties, the CLECs and the ILECs, from fully recovering their costs; is that right?
A. Possibly. As I said, we really don't know what the CLEC's costs of serving Internet traffic really are, whether they're recovering in total enough money to cover both the non-traffic sensitive costs of the ISDN PRIs that they sell and the per minute costs of all the traffic that they terminate.
Q. Okay. What I want to focus on is the notion of competitive neutrality and ask you if reciprocal compensation is permitted with the ESP exemption in place, how will that affect the competitive balance, if you will, between the CLECs on the one hand and the ILECs on the other?
A. Well, I discuss that situation in my testimony. That's the one which gives rise to different incentives on the part of CLECs and ILECs, ultimately

coming from the fact that the ILECs currently have 95% of all the dial up Internet users, and those are the people that generate reciprocal compensation. So that reciprocal compensation has the effect of distorting the competition for end users and the competition to serve ISPs.
Q. Okay. And then in terms of cost recovery for the ILEC and the CLEC, if reciprocal compensation is allowed, which party is hit harder by the ESP exemption, if you will, the ILEC or the CLEC?
A. Well, in principle, it must be the ILEC. The CLEC if we got reciprocal compensation right, in Chairwoman Showalter's sense, would be held whole, it would be recovering its forward looking costs. But there is nothing in reciprocal compensation that purports even to hold the ILEC or to recover the costs of the ILEC. Those are now mixed up in basic exchange service, local usage, and the requirement to carry ISP bound calls all the way to points of interconnection plus then pay reciprocal compensation, which exceeds the incremental costs avoided at least in many circumstances.
Q. Okay. Still focusing on this principle of competitive neutrality, you were asked to compare bill and keep versus reciprocal compensation where the setup

charge and the duration charge were just right. And let's assume that the setup charge and the duration charge were just right. How would that situation where you had two correct charges, if you will, compare to bill and keep in terms of competitive neutrality? Does that make sense?

A. I think so, I'm not sure I know the answer. Under reciprocal compensation with prices just right, it is still the ILEC that has no mechanism for recovering its costs, all of its costs from Internet traffic. So at least some of the competitive distortions that Chairwoman Showalter mentioned and that we discussed, that is incentives to -- the ILEC's incentive to serve all of the ISPs so that it doesn't have to pay reciprocal compensation in excess of its avoided costs and to avoid customers who might be inclined to make dial up Internet calls, those are still present.

Now under bill and keep, competitive distortion today is, you know, with the current set of customers that CLECs have chosen, is that CLECs may or may not be recovering all of their costs from the ISPs that they have chosen to serve. So if on day one we switched to bill and keep, the CLECs would have to look at their books pretty hard to make sure that they're getting enough in the charge for the PRI that they sell to cover all of their PRI costs plus the traffic sensitive casts of all of the calls that come to them.

The result, as Dr. Gabel and I discussed, will be that the rates that get charged for -- that CLECs will be charging to ISPs will undoubtedly go up. At the end of the day, that's going to be competitively neutral, because what we're approaching is the situation where Qwest is today in some sense. That is, Qwest doesn't get any reciprocal compensation for serve -- when its customers, 95% of the residential customers, call ISPs that it serves. So in a sense, this -- going to bill and keep will move us towards a competitive neutrality, I guess. Maybe that's where I'm trying to go.

Q. Okay. You testified a few minutes ago, I think in response to one of the Chairwoman's questions, that there may be circumstances where an ILEC is paying reciprocal compensation for Internet traffic if reciprocal compensation is ordered where it wouldn't be saving anything. Do you recall saying that?

A. Yes.

Q. And I think you had in mind the situation where the CLEC is serving the ISP out of an end office; is that right?

A. Yes.

Q. If this Commission were to adopt a reciprocal compensation rate for Internet traffic, do you think that those situations where the ILEC isn't as you said saving anything should be somehow factored into the mix as a carve out or as having an effect on the rate that's adopted?
A. Well, I don't know how you could do that. I mean it's certainly an important policy issue that should affect whatever mechanism is set up under reciprocal compensation for the ILEC to recover its costs. I mean one has to take into account that it's going to be paying some reciprocal compensation in excess of the costs that it saves, so it's going to have to get that from somewhere, which as far as I know is basic exchange service. So that would be the solution that this problem or the direction of a solution this problem would have, I think.
Because I don't think you can do anything on the CLEC side. That is, I don't see trying to say something about charging CLECs the avoided cost, because that sets up a distortion. If you charge them anything other than their own costs, that sets up the sort of distortions that are in my testimony. And if you charge them anything that's different from the ILEC's costs, we are at war with the FCC. So, you know, what you have is

a third criteria and you would like to put on the reciprocal compensation rate, and you've only got one rate, and you can't have three -- it can't equal three different costs.

Q. Could you just clarify when a CLEC serves an ISP out of an end office, why is it that Qwest or Verizon is not avoiding costs?

A. Okay. Well, I think the main reason is the cost that we always assume that they would avoid is the cost of switching. That is, the model we all have in our mind is that a call originates from a ILEC customer, goes to the ILEC end office, goes to the tandem. Then at the tandem, if the ISP is served by the CLEC and the CLEC interconnects at the tandem, the ILEC is going to save one end office switching function and the associated transport. And that's roughly the incremental cost arguably that we calculate when we calculate the termination and transport costs.

But that's only the case when the call is routed through a tandem. When the call goes directly through the end office, Qwest will have at the end of the day the same number of switching functions that it does whether the ILEC -- whether the ISP is served by a CLEC or directly out of the end office or the ISP is served directly by Qwest out of the end office.

Q. Okay. Just a couple of more follow ups, Dr. Taylor. You said I think early on in your cross-examination that ISPs are not end users from a functional perspective. I don't think that you explained beyond that. Could you just explain that conclusion, please.

A. Sure, I mean it has two quick parts. And one is that the only reason that people think ISPs are end users, I believe, is because the FCC has made them end users for paying basic exchange service for what the FCC thinks is interstate access service. It's that sense in which the FCC treats them as end users, not any other, and that's the quasi legal sense.

The functional sense is that an ISP, like an IXC, is somebody that you never call. I mean, you know, you dial through them, you don't dial them. The function of making a call when you sit down and either think about calling a friend long distance or buying a shirt on Lands End, that passes through a number of telecommunications carriers possibly, about which you could care less. All you care about is the end point of your call, namely Lands End or Amazon.com or my friend in Boston. And that's the sense in which both an ISP and an IXC are not end users. The message doesn't stop there functionally speaking.

Q. All right. During your cross, you were asked some questions about whether ISPs and CLECs are, in fact, sharing the proceeds of reciprocal compensation; do you recall that?
A. Yes.
Q. And I believe you said that you know of one such circumstance where that has occurred. What circumstance is that, and could you explain it, please?
A. Sure, that's U.S. LEC, an ILEC -- a CLEC in North Carolina. The situation, I don't know how familiar you are with it, there was a hearing before the North Carolina Public Service Commission, the results of which are public, so this isn't telling tales out of school. The situation was that U.S. LEC thought it would be a good idea to set up a business, they called it Meticom, an affiliate or separate, well, they owned a large portion of it, whose business plan was to place -- to give Internet access away to schools and churches in North Carolina.
And the way it worked, if you were a school or a church or a boy scout troop or a horse barn was if you agreed to have a DS3 in your basement along with a switch, a router actually, you could have Internet access for free. And what would happen is the router would set up hundreds of voice grade equivalent lines on

this DS3, which BellSouth, which was the -- who was the ILEC there, would carry to a termination point on U.S. LEC's network. These circuits were up 24 -- 23 hours and 59 minutes a day. They had to bring them down once a day for billing purposes. And U.S. LEC, Meticom, were billing BellSouth on the order of tens of millions of dollars a month for reciprocal compensation. They were similarly paying BellSouth millions of dollars a month for the DS3s and the transport.

The case came before the Commission when BellSouth figured out what was going on, they thought this was probably not a good idea, and refused to pay, and U.S. LEC complained to the Commission, brought the case to the Commission. The Commission decided in very strong language that this wasn't what reciprocal compensation was intended to encourage. They had examples of the horse barn that was making Internet calls on 300 lines 24 hours a day, and they didn't really think that was a good idea. And so it was thrown out, that is U.S. LEC did not get its reciprocal compensation. I think the narrow grounds were on the fact that this -- the network that Meticom and U.S. LEC set up was not a switched network, but had characteristics of a dedicated network, to which reciprocal compensation didn't apply. But it was a nasty, nasty case.

Q. Dr. Taylor, my last question is WorldCom's counsel had you read into the record an excerpt from the D.C. Circuit's decision in Bell Atlantic versus FCC relating to the issue of essentially the meaning of termination, and I wanted to ask you whether you wanted to add any context to what you were asked to read into the record?

A. Sure. The main context I would repeat again is that I'm not a lawyer, and I'm the last person who should be interpreting the court, but I would point out my direct testimony at the bottom of page nine where all of this discussion takes place, where I say regardless of the outcomes of the remand decision and all of that, I argue that an end to end analysis of the jurisdiction of the call makes economic sense, and cost causation tells you why an Internet bound call looks more like long distance, falls into the long distance paradigm rather than the local paradigm. I mean I think that's where the argument should be based, not on sort of the legal grounds.

And though I plead guilty to discussing the decision, the bulk of my testimony deals with the economic reasons why an ISP bound call has more of the characteristics of a long distance call than of a local call.

MR. DEVANEY: Thank you, no further questions.

JUDGE BERG: Dr. Gabel.

E X A M I N A T I O N

BY DR. GABEL:

Q. I just want to follow up in two areas, Dr. Taylor. First, in response to Mr. Devaney, you talked about the costs that were avoided when an ISP was served by a CLEC. Do you recall that discussion?

A. Yes.

Q. And you used an example where the traffic initially would have flown through a tandem, and you said in that situation there would be avoided costs?

A. Yes.

Q. And is it your position, Dr. Taylor, if the call had originated on one ILEC's end office and the ISP was located in a separate central office but still served by the ILEC that there would be no avoided costs when the ISP moves from the ILEC to a CLEC?

A. Depending on how the CLEC receives service, I think the answer is yes. The diagram -- is there a marker. It's a quick diagram, it will help me to think too. I can't do this without -- I think the example

Dr. Gabel has in mind is we have an end user served by the ILEC central office, which let's suppose is directly connected, that is not through a tandem, to the second ILEC central office or end office. And at day one, we have an ISP that receives service from that ILEC central office. And then I think Dr. Gabel asks, what happens if this ISP decides to take service from a CLEC whose central office is say up here. And in what sense or in what case do we save -- does the ILEC save a switching function. Well, if the ILEC receives service from this ILEC -- I'm sorry. If the CLEC takes service from the ILEC central office, then we still have two switching functions that the ILEC has to undertake. If -- well, I guess this is red -- more likely perhaps there is a tandem up here and the ILEC takes service out of the tandem --

MR. DEVANEY: The CLEC takes service out of the tandem?

A. Correct, sorry, the CLEC takes service out of the tandem, see, this is the ILEC tandem, then what we would have most likely is the exchange of a tandem switching function for an end office switching function. And whether that saves costs or not, I don't know, but it's not, you know, it might or it might not.

But in any case, the main example I had in mind was just when the ISP turned itself into a CLEC, and then there is no change at all. You know, kind of in total if you think of all the different examples, and all of these can happen all at the same time with different arrangements in the network, the only time in which the ILEC actually saves a full cost of switching and transport I think is when we actually go through a tandem and would then have had to serve the ISP through an end office, in which case it will -- you would use the CLEC end office instead of the ILEC end office, and we would save what we usually calculate as the incremental cost of switching and termination and transport. In every other case, we save something that's less than that.

So aggregate all of that up, and in total I have to believe that the aggregate cost of transport and termination for the ILEC has to be less than -- it has to save less than the aggregate cost. It only saves it in one case, and it doesn't save as much of it in lots of others.

Q. But, Dr. Taylor, if there is a direct connection from your end office on the left to the CLEC's central office, then there are avoided costs?

A. Yes, then I have exchanged my end office switch for its end office switch.

Q. All right. And last question on this diagram, Dr. Taylor, and this gets to the technology, initially your central office that's in the middle of your diagram, the one that initially served the ISP was an end office, right?
A. Yes.
Q. And you have now effectively made it into a tandem, because in your diagram you're now routing the traffic through that office to get to the CLEC; is that correct?
A. I am -- well, the CLEC has chosen to receive service from my end office. It can take service anywhere it likes in my network. It can attach to my end office, or it can attach to my tandem.
Q. All right, thank you. Now I'm going to move on to another topic, and this is the last question, and that is just a follow up to both the Commissioners' and Mr. Devaney's questions about incentives for investments, and you have eloquently expressed your concern about how under today's bill and keep that CLECs may not have an incentive to go out and serve customers, and you have really focused on residential customers as a group of customers that they have an incentive to avoid. Is that a fair characterization of your testimony?

A. Well, it is except I think you said bill and keep --
Q. Oh, I wanted to say --
A. -- where I think you want to say reciprocal compensation.
Q. Thank you, reciprocal compensation.
A. Yes.
Q. Thank you. All right, I understand your logic, but also, Dr. Taylor, is it fair to say that you're rather familiar with the activities of the CLECs in the state of New York because you have looked at that market in support of Verizon's 271 application in that state?
A. Yes.
Q. Or other states?
A. Yes, that's fair.
Q. Now in those states where, let me first ask, is it the case in Texas and in New York that reciprocal compensation is paid for ISP traffic?
A. Yes.
Q. Okay. In those states, haven't you testified and reported how the CLECs are out actively marketing to residential customers using the UNE platform?
A. Yes, I certainly have.
Q. And so the question I would like you to

explain is, in light of what you observed, how do you juxtapose what you have observed with the logical argument that you have presented here on this topic?

A. What we see in Texas and New York is the removal of another constraint which is distorted competition, namely the fact that in Texas and New York, the ILEC and the RBOC can provide long distance, so that if AT&T and WorldCom and Sprint want to continue to sell long distance in those states, they're going to have to attract residential customers. It is still the case even in New York and in Texas that reciprocal compensation is an incentive not to. That is, it's working in the other, in the opposite direction.

But what you have seen, and what I testified to, is when you remove the long distance constraint, at least long distance carriers, perhaps not other CLECs, but at least the long distance carriers now have a bigger incentive than they had before and went out and attracted more residential customers than they did before.

They would attract or have an incentive to attract even more if we were under bill and keep. So it doesn't -- I don't think there's a contradiction in my testimony. We have just removed in those states one other competitive distortion, which has had the effect of encouraging residential -- competition for residential customers.

DR. GABEL: Okay, I promised that was my last question.

E X A M I N A T I O N

BY CHAIRWOMAN SHOWALTER:

Q. I just have one more. I want to make sure I'm tracking your argument. You mentioned a couple of times that there are three costs or measures by which you could measure recip comp, and it can't be all three at once, but just repeat for me what they are or show we in your testimony what you meant.

A. Sure. Okay, the three are the three cost concepts that you could use. One is the forward looking incremental cost of the ILEC for transport and termination. The second is the ILEC's avoided cost when a CLEC provides service to the ISP. And the third is the CLEC's cost of terminating calls or supplying transport and termination to the ISP.

CHAIRWOMAN SHOWALTER: Thanks.

THE WITNESS: Sure.

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

BY MR. KOPTA:

Q. Just one follow up to the exchange that you had with Dr. Gabel about your experience or your observations in New York. Am I correct that both the Public Service Commission in New York and the FCC found that there was sufficient residential competition in those states prior to granting the 271 application of Bell Atlantic?
A. Yes, I mean that's the requirement of 271. On the other hand, I think if you look at the history of competition particularly for residential customers, you find a tremendous otherwise unexplained spurt of interest on the part of AT&T, WorldCom, and Sprint on serving residential customers in those states where it became evident to everyone that the commission, state commission and the FCC were going to approve long distance service.
Q. And at the same time, the New York Public Service Commission took some steps to make the UNE platform available in New York at least for the next three or five years, I don't remember which, prior to the UNE remand order, so that it set up the ability of IXCs to use the UNE platform to provide residential service, didn't it?
A. Yes, that's correct.
Q. And is it your understanding that in this

docket, the rates for UNE-P at least are being presented to this Commission essentially for the first time?
A. I'm not really familiar with the history of UNE-P in Washington.
Q. But you are aware that UNE-P costing and pricing issues are before the Commission in this docket?
A. Yes.
MR. KOPTA: Thank you, that's all I have.
MR. DEVANEY: Nothing, thank you.
JUDGE BERG: All right, Dr. Taylor, thank you very much for your time and for your testimony here today. You are excused from the hearing.
THE WITNESS: Thank you, sir.
JUDGE BERG: We will be off the record.
(Hearing adjourned at 4:45 p.m.)