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MARCIA J. MENGEL GLERK SUPREME COURT OF WHAT

1	PUBLIC UTILITIES COMMISSION
2	STATE OF OHIO
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4 In the Matter of the Application of Cincinnati Bell) 5 Telephone Company for Approval) of a Retail Pricing Plan Which) Case No. 96- 6 May Result in Future Rate)	
	Telephone Company for Approval)
	May Result in Future Rate)
7	Increases and for a New) Alternative Regulation Plan.)
8	
9	Hearing Room 11-D
10	Borden Building 180 East Broad Street
11	Columbus, Ohio 43215 Wednesday March 17, 1999
12	Met, pursuant to assignment, at 9:00 o'clock a.m.
13	BEFORE:
14	Dwight Nodes, Attorney-Examiner.
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16	VOLUME VIII
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1	APPEARANCES (continued):
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1	PROCEEDINGS
2	
3	Wednesday March 17, 1999
4	Morning Session
5	
6	THE EXAMINER: Let's go on the record.
7	Ms. Sanders, ready to call your first witness?
8	MS. SANDERS: Yes, thank you. MCI calls Michael
9	Starkey to the stand.
10	THE EXAMINER: Raise your right hand.
1.1	(Witness placed under oath.)
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- 1 MICHAEL STARKEY
- of lawful age, being first duly placed under oath, as prescribed
- 3 by law, was examined and testified as follows:
- 4 DIRECT EXAMINATION
- 5 BY MS. SANDERS:
- 6 Q. Could you please give your name and address for the record?
- 7 A. My name is Michael Starkey, and my address is 857 North
- 8 LaSalle Drive, Suite 3, Chicago, Illinois, 60610.
- 9 Q. Mr. Starkey, by whom are you employed?
- 10 A. I'm employed by Quantitative Solutions, Incorporated.
- MS. SANDERS: Your Honor, at this time I'd like to
- 12 mark for identification purposes the direct testimony of Michael
- 13 Starkey, which was filed on December 23rd, 1997, and I'd like to
- 14 mark that as MCI Exhibit 20, that would be the confidential
- 15 version. The public version I would mark as 20A.
- And then I would also like to mark the supplemental
- 17 testimony of Michael Starkey which was filed on December 23rd,
- 18 1998, as MCI Exhibit 21, and the public version of that
- 19 testimony would be marked as 21A.
- 20 - -
- Thereupon, MCI Exhibit Nos. 20, 20A, 21 and 21A
- were marked for purposes of identification.
- 23
- 24 BY MS. SANDERS:
- 25 Q. Mr. Starkey, do you have before you what we have just

- 1 marked for identification purposes as MCI exhibits 20 and 21?
- 2 A. I believe I have the confidential versions of that
- 3 testimony in front of me.
- 4 MS. SANDERS: We're doing this on the confidential
- 5 record; is that correct?
- 6 THE EXAMINER: Yes.
- 7 BY MS. SANDERS:
- 8 Q. Can you identify that testimony, please, or those
- 9 documents, please?
- 10 A. The first is a copy of my direct testimony, and the second
- is a copy of what's entitled supplemental testimony.
- 12 Q. And was this testimony prepared by you or under your direct
- 13 supervision?
- 14 A. Yes, it was.
- 15 Q. Do you have any additions or corrections to make to those
- 16 documents?
- 17 A. I have just a few corrections. Let's start with the direct
- 18 testimony.
- 19 The first correction is on Page 1, under the question,
- 20 "Please state your name and business address for the record"
- 21 currently states that, "I am a Principal member of Competitive
- 22 Strategies Group, Limited", that's at Line 5. That should be
- 23 read that, "I'm a Principal member of Quantitative Solutions,
- 24 Incorporated". The rest of the sentence is fine.
- Then if we go to Line 7, that same paragraph, it says, "I

- 1 currently serve as Vice-President of the firm's
- 2 Telecommunications Services Division", should read, "I serve as
- 3 the firm's President".
- 4 Then if we go to Page 22, Line 9 -- I may have to
- 5 apologize, I don't know if I have exactly the same line numbers
- 6 everybody else, I hope I do -- but there should be a question
- 7 there that reads, "Do you have reason to believe that the
- 8 Ameritech ACAR factors above are a more reasonable estimate...".
- 9 The second line of the answer to that question, the answer reads
- 10 right now, "Yes, there are a number of factors that suggest the
- 11 Ameritech ACAR factors better represent the level of fill...".
- 12 At that point in the sentence we should insert the words
- 13 "sustainable in a forward-looking network" and remove the word
- 14 "will" at the end of the sentence.
- The next correction is at Page 28. Again, sort of a
- 16 typographical error. Line 19, on my copy at least, the sentence
- 17 begins with, "It seems clear that the fiberoptic cable
- 18 supporting the OC3 system..." At the very end of that sentence
- 19 where it says "is utilizing another 4 of its cables", the word
- 20 "cables" should be replaced with the word "fibers".
- 21 Then at Page 36, again a typographical error. In the
- 22 answer to the question that begins, "Why does CBT assume..."
- 23 and about the third or fourth line down it says "Fundamentally,
- 24 CBT's argument centers on the fact that because", remove the
- 25 word "because".

- 1 And then I just have one set of corrections to my
- 2 supplemental testimony.
- 3 And I think we do have the same line numbers here. It
- 4 starts at Page 33. At Page 33 between Lines 17 and 18 there's a
- 5 table. And the very bottom row of that table is entitled
- 6 "Update". The number that currently rests there is 0.0067,
- 7 should be replaced with .00758. And then, correspondingly,
- 8 under the column "Header Rate", in that row, that currently says
- 9 .0075, it should be .0088.
- 10 And that's all my corrections.
- 11 Q. All right. With the -- with those corrections, if I were
- 12 to ask you all the questions that are contained in your direct
- 13 testimony, would your answers be the same?
- 14 A. Yes, they would be.
- MS. SANDERS: At this point, your Honor, I would move
- for the admission of MCI Exhibits 20, 21, 20A and 21A, and I'll
- 17 tender Mr. Starkey for cross-examination.
- 18 THE EXAMINER: All right. Mr. Hart.
- 19 MR. HART: Your Honor, I would make the same motion to
- 20 strike as I did yesterday with respect to pages of the testimony
- 21 that refer to the Ameritech ACAR fills. I could give you those
- 22 pages, I believe it's --
- 23 THE EXAMINER: I'll deny the motion to strike. If you
- 24 want to identify the pages for the record, go ahead.
- MR. HART: I believe it's Page 19 of the direct

- 1 testimony, over through Page 22, I believe.
- 2 - -
- 3 CROSS-EXAMINATION
- 4 BY MR. HART:
- 5 Q. Mr. Starkey, let's start with your direct testimony. If
- 6 you can go to where it actually starts with the subject of your
- 7 testimony, I believe, on Page 7.
- 8 A. Okay.
- 9 Q. I understand you're recommending that Cincinnati Bell's
- 10 West 7th central office be designated as a separate rate band by
- 11 itself?
- 12 A. The reason I hesitate is I think what I'm recommending is
- 13 that the West 7th office that costs be identified specifically
- 14 for that office, and that unbundled loops be priced in that
- 15 office. I don't know if I've considered it a rate band in and
- 16 of itself. I may have used that terminology.
- 17 Q. Well, you're suggesting that the rates for that office be
- individually determined apart from the rest of the network?
- 19 A. The rate for unbundled network elements, yes.
- 20 Q. And would that include all unbundled elements in that
- 21 office?
- 22 A. My recommendation is at this point specific to loops,
- 23 because that, after my review, is where the costs seem to be
- 24 significantly disparity in comparison to the other rate bands.
- 25 Q. And if the rates for other unbundled elements were

- 1 significantly disparate in the West 7th office from the rest of
- 2 the network, should it also be treated separately for that
- 3 purpose?
- 4 A. I think I'd make a distinction if we were -- to make sure
- 5 that we're talking about forward-looking long-run incremental
- 6 TELRIC costs, but if it were proven that there were costs on
- 7 that basis that were significantly disparate and that were
- 8 greater, then yes, I think that recommendation would hold true.
- 9 Q. Now, your testimony recommends that the remainder of what
- 10 Cincinnati Bell has designated as Band 1 be combined with its
- 11 Band 2; is that correct?
- 12 A. Yes, that's my recommendation.
- 13 Q. And there's no -- Strike that.
- You don't really have a strong feeling one way or the other
- about whether those should be combined or remain as separate
- 16 bands, do you?
- 17 A. I think I'd say I haven't -- I haven't looked at what --
- 18 What I did in making that recommendation was review the loop
- 19 sample that CBT provided and which it based its rates on, and I
- 20 didn't see the same sort of disparities between those central
- 21 offices that I saw in the West 7th, so it seemed to me that it
- 22 wouldn't be detrimental to lump those together.
- 23 Q. But also I believe you've testified at deposition that you
- 24 wouldn't be opposed to keeping them separate, either?
- 25 A. If you wanted to have four rate bands, I didn't see any

- 1 cost differences that would suggest that that would be
- 2 detrimental, either.
- 3 Q. Now, are you familiar with the Ohio Commission's rules on
- 4 establishing different rate bands?
- 5 A. I'm trying to remember whether those are in the Local
- 6 Service Guidelines of which I'm most familiar. I'd say that I'm
- 7 not exactly sure, no.
- 8 Q. Okay. Let me read to you from the Local Service
- 9 Guidelines, it's Page 38, I believe it's VB -- I'm sorry,
- 10 VB2A5 -- or 6. Let me try that again. VB2A6, which says, "An
- 11 ILEC may establish different rates for elements in at least
- 12 three defined geographical -- geographic areas within the state
- 13 to reflect geographic cost differences".
- Does that refresh your memory at all?
- 15 A. If I could see the whole document, it might.
- 16 Q. Sure.
- 17 A. Yes, I see that it says that.
- 18 Q. Okay. And it says the ILEC may, right?
- 19 A. It says an ILEC may.
- 20 Q. Okay. And see later on it also says that, "To establish
- 21 these rates, the ILEC may use other cost-related zone plans
- 22 established pursuant to state law"?
- 23 A. It uses that -- Yes, that sentence is there.
- Q. Okay. Are you familiar with the stipulation that was
- 25 reached in the alt. reg. portion of this case?

- 1 A. Only generally, and specifically only when it dealt with
- 2 TELRIC-related matters.
- 3 Q. Okay. You understand that for retail purposes, that
- 4 stipulation called for three retail rate bands?
- 5 A. I'm not familiar with that.
- 6 Q. And you don't -- you're not aware that those retail rate
- 7 bands are exactly the same as the TELRIC loop rate bands that
- 8 Cincinnati Bell has proposed in this case?
- 9 A. No, I'm not familiar with that.
- 10 Q. So you apparently didn't consider that when you wrote your
- 11 testimony?
- 12 A. No, I didn't. As I suggested earlier, I considered the
- 13 cost disparity the between the West 7th and the remaining
- 14 central offices.
- 15 Q. Do you know if MCI was a signatory to that agreement?
- 16 A. I believe it was.
- 17 Q. On Page 10 you have a chart here, and I take it this is
- intended to depict the loop lengths that would result if you
- recombined the bands the way you've proposed?
- 20 A. Yes, it does.
- 21 Q. Okay.
- 22 A. Well, actually it provides a little more information than
- 23 that. It's a comparison between the rate bands that CBT has
- 24 defined them and the loop lengths that result from my
- 25 recommendation.

- 1 Q. Okay. I take it your intention under rate Band 2, under
- 2 the MCI columns, was to combine the remainder of Cincinnati
- 3 Bell's Band 1 after removing West 7th Street, combine that with
- 4 its Band No. 2?
- 5 A. Yes. It always worries me when you say that was my
- 6 intention, because I hope that was the result as well.
- 7 Q. Well, do you realize that you combined the loop lengths for
- 8 West 7th and Band 1 instead of Band 1 and Band 2?
- 9 A. I'm sorry, can you say that again?
- 10 Q. Do you realize that under the rate Band 2 business
- 11 column -- business line, you actually combined the West 7th
- 12 Street office with the remainder of Band 1, rather than Band 1
- 13 and Band 2?
- 14 A. I'm not certain that I did that. If I did, it was a
- 15 mistake, and it would simply have made the comparison less
- 16 exhibitive than it was meant to be.
- 17 Q. Okay. Is this the first time that's been brought to your
- 18 attention?
- 19 A. Well, I'm still not certain it's correct, but that's not
- 20 been brought to my attention.
- 21 Q. You're welcome to check that; but that's the first time
- 22 you've heard of the possibility of that error?
- 23 A. Yes.
- Q. Let's move on to the next section, starts on Page 11, about
- 25 structure investment.

- 1 I understand that you recommend that for pole and conduit
- 2 investments, that that be limited to Ohio only?
- 3 A. Yes, that -- more specifically, that the comparison between
- 4 pole and conduit investment and the subsequent cable investments
- 5 to which they are compared to make a ratio, that both of those
- 6 investment factors be Ohio-specific information.
- 7 Q. And have you read Mr. Mette's most recent testimony,
- 8 December of 1998 -- I'm sorry, September 1998?
- 9 A. Yes, I have.
- 10 Q. And you understand he has agreed to do that in the new cost
- 11 studies?
- 12 A. Subject to check, I'd agree with that.
- 13 Q. Okay. And you recognize when you did your -- when you did
- 14 your calculation in Exhibit 2 to your testimony, that you really
- 15 need to get the investments rather than number of poles?
- 16 A. Yes, I suggested that the calculation I made in that
- 17 exhibit had a couple of assumptions, that I would prefer to have
- 18 the actual information to better do a calculation that is more
- 19 accurate.
- 20 Q. Okay. Now, the next thing you talk about under pole and
- 21 conduit is investment related to occupancy services; is that
- 22 correct?
- 23 A. That's correct.
- Q. And you understand from Mr. Mette's testimony that he also
- 25 proposes to remove that investment from the new cost studies?

- 1 A. Yes. Mr. Mette suggests a mechanism or, actually,
- 2 calculation by which he would do that. I understand that he's
- 3 made that recommendation.
- 4 Q. And I believe you said that you agree with the methodology
- 5 he's proposed to do that?
- 6 A. I think what I said was I don't disagree with it until I
- 7 actually see the calculation, but until I see the calculation, I
- 8 won't know exactly how it's done.
- 9 Q. But his description of the methodology he would use, you
- 10 would agree with; is that right?
- 11 A. I don't think I've said that. I think I've said I'd have
- 12 to wait until I see the calculation before I understand the
- 13 extent to which it accurately portrays the removal of those
- 14 investments.
- 15 Q. Well, he's described how he's going to do it, hasn't he?
- 16 A. He's described the theory, yes.
- 17 Q. And have you raised any disagreement at all with how he's
- 18 described he's going to do that?
- 19 MS. SANDERS: Your Honor, that's the third time he's
- 20 asked him that, I object.
- MR. HART: He hasn't answered it yet.
- MS. SANDERS: He answered it twice.
- THE EXAMINER: Do you agree with the theory that
- 24 he's -- that Mr. Mette has expressed, although you've indicated
- 25 a reservation until you see it?

- 1 THE WITNESS: That's my only point, is that there is
- 2 some reservation until I see the actual calculation to
- 3 understand whether that theory accurately removes those costs.
- 4 BY MR. HART:
- 5 Q. Okay. And you would also agree, wouldn't you, that he
- 6 should only remove occupancy services that relate to Ohio?
- 7 A. Yes. I think we talked about that in deposition, that
- 8 consistently we should be talking about Ohio-specific
- 9 investments and resultant costs; so if there are revenues
- 10 generated and incremental costs generated with occupancy
- 11 services in the other states, those shouldn't be considered.
- 12 Q. So what we ought to do is determine the pole and conduit
- investments in Ohio and from that investment remove only the
- 14 Ohio occupancy investment?
- 15 A. Yes.
- 16 Q. Let's move on to the subject of fill factors which you
- 17 begin on Page 19.
- Before we get into the details, let's talk a little bit
- 19 general theory. Am I correct that in a TELRIC methodology that
- 20 we should design a network that will serve all of the customers
- 21 in the given service territory?
- 22 A. Yes. Generally the way a TELRIC methodology should be done
- is, especially given the way the FCC and the Ohio Commission
- 24 have defined it, is given your current central office locations
- 25 and a knowledge of where your current customer base is, design a

- 1 network, a forward-looking, most efficient network that would
- 2 serve that customer base.
- 3 Q. Okay. And we do that for all customers regardless of how
- 4 many carriers might be active in that area, right?
- 5 A. That's correct.
- 6 Q. So if Time Warner has a network and MCI has a network and
- 7 somebody else has a network, Cincinnati Bell still needs to
- 8 develop a TELRIC cost study that would serve every customer in
- 9 its territory?
- 10 A. The only reason I hesitate is I'm trying to understand the
- 11 extent to which that would actually make a difference in the
- 12 case we're talking about here because of -- at least in my
- understanding, the number of customers that have been lost to
- 14 competitors is very small, such that the outcome of the
- difference between those two methodologies really wouldn't be
- 16 great, it seems, in my understanding. But what I would suggest
- is if we're trying to understand CBT's underlying TELRIC costs,
- 18 those should be based on the costs associated with serving its
- 19 customers.
- 20 Q. Well, if there's the prospect of another network being
- 21 built in part of the territory, don't we ignore that for
- 22 purposes of TELRIC, we still build a ubiquitous network?
- 23 A. Well, that seems different than your first question which
- 24 was if those carriers are currently serving customers and CBT
- 25 has lost those customers to competition, compared to what I

- 1 think your question is now which is if there's the prospect of
- 2 another network.
- 3 What I suggested was that CBT's costs should be determined
- 4 based on serving its customers.
- 5 O. Its customers now?
- 6 A. Yes, at the time the study is done.
- 7 Q. Even if there's a threat of another network being built?
- 8 A. That's correct.
- 9 Q. We shouldn't assume they would build a smaller network just
- 10 because somebody else might have a competing network?
- 11 A. Yes, they should build a network -- design a network to
- 12 serve their current customer base.
- 13 Q. Okay. And am I correct that in designing this network,
- 14 what you should do is look at different deployment schedules and
- 15 pick the one that has the least cost net present value?
- 16 A. You threw the term "net present value" in there at the end.
- 17 I was agreeing all the way up until then, and I think this gets
- 18 to the discussion we had in our deposition.
- 19 Let me just say again, I think the right way to do it is
- 20 given your current central office locations and your current
- 21 customer base, design a network, and if that takes an iterative
- 22 process wherein you must get an understanding of what is that
- 23 least cost network by designing a couple of different networks,
- 24 so be it, but design a network that on the most efficient,
- 25 forward-looking basis serves that customer base.

- 1 Q. And you don't limit that to exactly the number of customers
- 2 you have, you have to allow for some growth, don't you?
- 3 A. No, I don't think you do.
- 4 Q. Didn't you say you did in your deposition?
- 5 A. No, I don't think I did. I think what we discussed in my
- 6 deposition was the two ways in which you could do a TELRIC
- 7 study, and we talked about shortcuts and the idea that some of
- 8 those were difficult to do.
- 9 But I'd stick by my answer that the right way to do a
- 10 TELRIC study, set your current central offices in place, you
- 11 know where your customers are, design a network to serve them.
- 12 Q. Didn't you testify that if you had a hundred customers, it
- 13 wouldn't make any sense to just put a hundred-pair cable out
- 14 there?
- 15 A. I don't know under what context we would have been talking
- 16 about. I don't believe I would have said that in response to
- 17 how to build a TELRIC study in the right way.
- 18 Q. Do you recall me asking you, "Would you agree with me that
- if I put a 100-pair cable out, that it's pretty likely I'm going
- 20 to have to reinforce that pretty soon?" And your answer was,
- 21 "Yes, and I wouldn't suggest you would do that"?
- 22 A. Yes, I don't think we were talking about the right way to
- 23 build a TELRIC study at that point in time.
- Q. And I asked you next, "Because if I do that, then I need to
- 25 factor into fairly quick reinforcement costs?" And your answer

- was, "Instantaneous at your next customer, yes".
- 2 A. That's possible. Again, I don't believe we were discussing
- 3 the right way to do a TELRIC study?
- 4 Q. Didn't you also agree that Dr. Ankum's theory for how to do
- 5 a TELRIC study was the correct way to do it?
- 6 A. Can you point me to where I said that?
- 7 Q. I might later on, I can't right this instant; but you don't
- 8 recall saying that?
- 9 A. Not necessarily in those terms. I'd like to better
- 10 understand the context in which I said it.
- 11 Q. Do you recall me asking you this: "How do I decide whether
- 12 to put in the 100-pair cable now or go to the next step and put
- in 125-pair cable?", and you answered, "You do a net present
- 14 benefit analysis like I suggested, knowing your costs of
- 15 carrying, your costs of replacing and the sustainable fill that
- 16 you could have on any given cable"?
- 17 A. I assume you're reading that, so I do remember saying
- 18 something generally like that; but again, we were talking about
- 19 two ways in which you could do a TELRIC study, and perhaps maybe
- I should just explain those two ways so everybody understands
- 21 what you and I are talking about.
- 22 Q. I'll let you do that on redirect.
- 23 A. Okay.
- Q. Once we design this network, am I correct that we then
- 25 determine how much it costs?

- 1 A. Yes. I'd say more generally that the next step after you
- design the network is to determine the investment associated
- 3 with that network.
- 4 O. Okay. And we also, after we have a network design, would
- 5 have to determine what the fill would be on that network?
- 6 A. Can you say that again?
- 7 Q. Once we have a network design, we would have to determine
- 8 what the estimated fill would be in that network?
- 9 A. The only reason I hesitate with that is I don't know it's
- that specific of a timing issue, first you do the investment
- 11 then you determine the fill. Whenever you design your network
- 12 you have to understand that a certain fill is going to be
- associated with the facilities you put in place. So I don't
- 14 know that you necessarily determine the fill after you've done
- 15 the investment. That's part of the process of determining how
- 16 much investment to place.
- 17 Q. But you also might find that an investment that results in
- a lower fill might have an overall lower cost than a different
- investment that would result in a higher fill, correct?
- 20 A. I guess that could be possible. I'd have to understand --
- 21 That seems the exception to the rule. I'd have to understand in
- 22 what context you meant that.
- Q. Well, if you determine that the lowest cost network had a
- lower fill, you would pick that network regardless of what the
- 25 fill is, wouldn't you?

- 1 A. I don't think that's a rational -- I don't think that's a
- 2 rational outcome because, as I said, it's not a process of
- 3 designing your network and then determining the fill. Fill is
- 4 an issue in how you design your network.
- 5 So a circumstance where you designed your network and then
- 6 saw that a fill was higher, but the investment was lower, I
- 7 don't understand the situation in which that's likely to occur.
- 8 Q. Well, the decision criteria for what network you build is
- 9 lowest cost, right?
- 10 A. That's one of the decision criteria, yes.
- 11 Q. And most efficient?
- 12 A. Most efficient forward-looking, yes.
- 13 Q. So if the lowest cost, most efficient, forward-looking
- 14 network resulted in a lower fill, than some alternative design
- that had a higher cost, you would pick the lower cost network
- 16 regardless of what the fill is, wouldn't you?
- 17 A. I don't think I'm disagreeing with you. I'm simply
- 18 suggesting that seems to be the exception to the rule. And I
- 19 think the problem with your question is that it assumes that
- 20 designing the least cost, forward-looking network and realizing
- 21 a particular fill are two different steps.
- What I'm suggesting is they are involved in the same step
- and, hence, it's unlikely that you would design a network in the
- least cost, forward-looking manner and get a higher fill and a
- 25 lower cost.

- 1 Q. Now, am I correct that the standard in the Commission's
- 2 rules and in the FCC rules for establishing a fill is to
- 3 estimate that proportion of the facility that will be filled?
- 4 A. I wouldn't agree with that.
- 5 Q. What is the Commission's standard, then?
- 6 A. I think I've included it in my testimony at Page --
- 7 Q. It's on Page 19, I'm looking right at it. In fact, I just
- 8 read it.
- 9 A. Let me get back to there.
- 10 Well, you read the first paragraph and not the second. The
- 11 second paragraph comes from the Commission's Entry on Rehearing
- 12 where they --
- 13 Q. In the Ameritech case?
- 14 A. Yes, which is more recent and more specific than the actual
- 15 rule, where they interpret the rule to suggest that in the part
- 16 I have underlined is, "When the applicable language is
- 17 considered in toto it is apparent that something more than
- 18 actual current usage was contemplated. We also note that
- 19 nowhere in our 845 quidelines that we set forth an actual usage
- 20 standard".
- 21 Q. And that's talking about current actual fill, correct?
- 22 A. Well, I don't know that it's talking only about current
- 23 usage fill, but certainly it mentions current usage.
- Q. And the actual standard says an estimate of a facility that
- 25 will be filled, right?

- 1 A. Yes, and I think what the Commission is delineating in that
- 2 paragraph from its order is that it's talking about that will be
- 3 filled after you've designed a least cost, forward-looking
- 4 network.
- 5 Q. And it's the estimate of what you actually expect to see,
- 6 not the maximum that you could possibly see, isn't it?
- 7 A. I'm trying to understand where there would be differences
- 8 between those two. Whenever you design a forward-looking
- 9 network, least cost, to serve a given customer base, it would
- 10 make sense to use the highest fill possible. And if that is --
- 11 And I don't necessarily understand what you mean by the maximum
- 12 possible, but you would want to use the highest possible in
- 13 order to reduce your costs.
- 14 Q. So long as increasing that fill didn't increase your costs?
- 15 A. True.
- 16 Q. And there's a point at which it will increase your costs,
- 17 isn't there?
- 18 A. For some pieces of equipment that might be true. For
- 19 others, it's not.
- 20 Q. Now, am I correct that the purpose for fill factors is to
- 21 allocate the total investment to that portion of the facility
- 22 that's actually in use?
- 23 A. I think I'd say it a little differently. The way I
- 24 generally think of fill factors and their usefulness is in
- unitizing a given investment over the number of saleable or

- 1 demandable units.
- 2 Q. Like I said, dividing the investment among those actually
- 3 in use?
- 4 A. Are you asking me to agree that those two things are the
- 5 same?
- 6 Q. You apparently don't.
- 7 A. I'd simply be more comfortable with the way I said it.
- 8 Q. So we'll unitize the investment. It's important to
- 9 understand the unit you're using, isn't it?
- 10 A. Yes, it is.
- 11 Q. And if you use an inappropriate unit in order to calculate
- 12 your fill, you'll result in an inappropriate cost, won't you?
- 13 A. I'm trying to think of a circumstance wherein you would use
- 14 the inappropriate unit. At its base your question seems to be
- if you did it incorrectly, you'd come out with the wrong answer,
- 16 and I think I'd agree with that.
- 17 Q. Okay. And when you do a cost study, it would make a
- difference at what point in the cost study the fill is applied,
- 19 wouldn't it?
- 20 A. I think I'll have to better understand your question. I
- 21 don't know what you mean.
- Q. Well, there's different models for cost studies, aren't
- 23 there?
- 24 A. When you say "models", you don't mean like methodology like
- 25 TELRIC and LRSIC you talk about?

- 1 Q. I'm talking about models like LCAT and other models used
- 2 for loop costing.
- 3 A. Yeah, different companies use different models, that's
- 4 correct.
- 5 Q. And those models apply fills at different points and in
- 6 different ways, don't they?
- 7 A. I assume that's possible.
- 8 Q. Let's talk about LCAT. You're pretty familiar with the
- 9 overall design of that, aren't you?
- 10 A. Somewhat, though I think we have to remember that CBT
- 11 really didn't use LCAT as anything other than a calculator. It
- 12 didn't use the LCAT model characteristics, so I'm familiar with
- 13 the extent to which CBT used it.
- 14 Q. So to the extent CBT used it, you've, in fact, been able to
- 15 replicate that on an Excel spreadsheet?
- 16 A. Yes. I have.
- 17 Q. Okay. And I just want to confirm a few of the steps here,
- and let's just talk about loop distribution for a minute.
- 19 Am I correct that the first step is to determine the
- 20 investment on a pair-foot basis in cables?
- 21 A. Yes, I think generally that's true.
- 22 Q. And you do that for different kinds of cable, underground,
- 23 buried and aerial?
- 24 A. Yes, and average them across different sizes of cable.
- 25 Q. And once that per-pair-foot investment is determined, we

- 1 then model an average loop, correct?
- 2 A. Yes, I think generally that's correct.
- 3 Q. And you apply, for example, the lengths of that average
- 4 loop to the pair foot investment to determine a loop investment?
- 5 A. Yes.
- 6 Q. And then that investment in the loop is divided by the fill
- 7 factor to unitize the investment?
- 8 A. I'm -- Let me find the exact sheet where that's done so I
- 9 can make sure we are working through the process correctly.
- 10 Q. Okay.
- 11 A. We're talking about distribution, specifically?
- 12 Q. Yes. I think for this purpose it's probably the same?
- 13 A. I think you're probably right. Let me look. I just want
- 14 to make sure we don't miss a step. Yes, after we -- yes,
- 15 generally what we do is we determine a per-foot per-pair
- investment in copper cable. We then apply the pole and conduit
- 17 factors to that to get an investment for the supported
- 18 structure.
- We then apply fill by dividing the fill factor or dividing
- 20 the total investment by the fill factor.
- 21 Q. Which will yield a larger number in order to unitize that
- 22 to the loops that are actually expected to be in use?
- 23 A. Assuming fill is less than one, yes.
- 24 Q. And then that grossed up investment is multiplied times an
- annual charge factor and divided by 12 to yield a monthly rate?

- 1 A. That's the process, yes.
- 2 Q. The reason I go through that is Dr. Ankum wasn't familiar
- 3 with those steps yesterday and I just wanted to confirm that --
- 4 some foundation for his testimony was appropriate.
- 5 A. Okay.
- 6 Q. Now, in your testimony you recommend that the Commission
- 7 apply the results of the Ameritech proceedings to Cincinnati
- 8 Bell, correct?
- 9 A. Yeah. More specifically, I guess the way I'd say it is I
- 10 suggested they use the factors found in the Ameritech Cost
- 11 Analysis Resource, but yes, the Commission ultimately did decide
- 12 upon those in the Ameritech case.
- 13 Q. And you can't show me that ACAR, can you?
- 14 A. I've shown you everything I can show you, which is
- 15 basically the factors and testimony describing how those factors
- 16 are derived and the Commission's conclusions regarding those
- 17 factors.
- 18 Q. And the testimony you're referring to as attached to your
- 19 testimony, it's one page or two pages, right?
- 20 A. Actually I think I provided it in a discovery request.
- 21 You're talking about the deposition? I'm sorry, the hearing
- 22 transcript? Yes, I did include that with my testimony, but I
- 23 also provided excerpts of other testimony in discovery responses
- to CBT that probably describe it in more detail.
- 25 Q. What you haven't given us is any actual engineering

- 1 background as to how those numbers were developed, have you?
- 2 A. Well, I haven't, but I don't believe the ACAR includes
- 3 those, either.
- 4 Q. Well, you have other documentation besides ACAR, don't you?
- 5 A. From Ameritech?
- 6 0. Yeah.
- 7 A. Yes.
- 8 Q. And you can't show that to me, can you?
- 9 A. Well, there's lots of documents from Ameritech that I can't
- 10 show you, but I guess what I'm trying to say is that the
- 11 engineering parameters associated with how the ACAR were
- 12 determined were included in testimony in that case, and my
- 13 understanding is that most of that is not proprietary, including
- 14 the steps by which they determined those given and we talked a
- 15 little bit about fresh look and we talked a little bit about the
- other things and the other ways in which they described that
- 17 ACAR. Most of that is not confidential.
- 18 Q. Well, there's not anything in anything you've provided us
- 19 that shows how a calculation of 85 percent fill was developed,
- 20 is there?
- 21 A. No, but I don't believe that it is necessarily based on a
- 22 calculation. I think what the ACAR is based on, I think the
- 23 testimony describes this, is the engineering parameters that
- 24 Ameritech is expecting to achieve in its network.
- 25 Q. And you really can't explain how Ameritech came up with 85

- 1 percent, can you?
- 2 A. Yeah, I think I can. I think I just did. I think what I
- 3 said was, and I think the testimony talks about this, is the
- 4 idea that the Ameritech engineers, whenever they designed a
- 5 piece of equipment, and let's take digital loop carrier
- 6 equipment for example, whenever they put that in place in the
- 7 Ameritech network, they say to be a least cost competitive
- 8 provider, what do we need to run that equipment at to make sure
- 9 that we recover as much costs as we can on that piece of
- 10 equipment, and what they have come up with are the factors that
- 11 are included in my testimony.
- 12 Q. And you can't share with me the actual development of how
- 13 they yielded that factor, can you, because you don't even know
- 14 how they did it?
- MS. SANDERS: Your Honor, I object, he just explained
- 16 exactly how this was done.
- 17 THE EXAMINER: All right. Overruled. If you can add
- 18 anything to it.
- 19 MR. HART: Can you read it back, please?
- 20 (Question read back as requested.)
- 21 THE WITNESS: I guess there are two questions there.
- 22 I guess the first one, I would say it seems to me you're asking
- 23 me can I give you the mathematical equation they used and I'm
- 24 saying no, I can't, because they didn't use one. What they did
- 25 was their engineers designed their network and in the normal

- 1 course of their business they said whenever we buy this piece of
- 2 equipment, given our incentive to be a least cost provider
- 3 because of the impending competitive market, what can we
- 4 realistically run that equipment at, and what I'm suggesting is
- 5 that the result of that analysis wasn't necessarily mathematical
- 6 and there's no equation, but that the result of that analysis is
- 7 what is included in the ACAR factors I included in my testimony
- 8 BY MR. HART:
- 9 Q. Now, nobody from Ameritech is going to testify to tell us
- 10 how they did this, are they?
- 11 A. Not in this case.
- 12 Q. Okay. So I kind of have to take on faith what you're
- 13 telling me is that's how they did it?
- 14 A. No. The documents, and I'm ashamed to say I don't
- necessarily remember the case number -- Yes, 96-922-TP-UNC,
- 16 there were at least three to four days worth of
- 17 cross-examination of the engineering witnesses on both sides,
- 18 both Ameritech and MCI and AT&T, describing in great detail,
- 19 painstaking detail the extent to which those ratios were
- 20 determined.
- 21 Q. And you didn't provide us with any of that, did you?
- 22 A. Provide you with the transcripts from the hearing?
- 23 Q. Yes.
- 24 A. No, I did not.
- Q. Isn't it also true that Ameritech used those fill factors

- in its retail LRSIC studies?
- 2 A. The only reason I hesitate is because we weren't allowed to
- 3 look at the retail LRSIC studies in that case, so I can't tell
- 4 you with absolute certainty that that is true. My understanding
- 5 is that was the contention in the case.
- 6 O. Isn't that what the Commission's order said?
- 7 A. Perhaps it said that. Not in the paragraph I've quoted.
- 8 Q. Isn't that one of the reasons the Commission said they had
- 9 to use them for TELRIC as well, because it would be inconsistent
- 10 if they didn't?
- 11 A. I don't know if it said it in that way, but that's
- 12 consistent with the idea that Ameritech was suggesting this is
- 13 the least cost way to run our network, and the Commission, I
- 14 think, if it did say that, rightly said that because if
- 15 Ameritech can run its network in that least cost manner for
- 16 itself, the nondiscriminatory standards of the Act would require
- 17 that it also run it in that fashion for competitors and that the
- 18 costs that result would be the same.
- 19 Q. Now, at that hearing Ameritech was not advocating the ACAR
- 20 fills, was it?
- 21 A. No, it was not.
- 22 O. It --
- 23 A. Let me --
- 24 Q. Not for TELRIC?
- 25 A. Not for TELRIC, but it was for LRSIC.

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- 1 Q. And LRSIC establishes retail floors, doesn't it?
- 2 A. Well, LRSIC is a cost methodology that determines the
- 3 long-run service incremental cost. Commissions sometimes use it
- 4 to establish floors for retail services.
- 5 Q. And that's how it's used in Ohio, isn't it?
- 6 A. I think generally, yes, that's my understanding.
- 7 Q. So for purposes of a LRSIC study, it was to Ameritech's
- 8 advantage to use high fills so that it would have low price
- 9 floors, correct?
- 10 A. I think the way I'd say that is it's to Ameritech's
- 11 advantage to run its network in the most efficient manner
- 12 possible. What I've suggested is that in doing that it came up
- with fill factors that are included in the ACAR and if, indeed,
- 14 that is correct, then it wasn't trying to gain advantage by
- using them in its LRSIC studies, it was simply representing its
- 16 actual costs.
- 17 Q. Well, for retail purposes, higher fills would give them
- 18 lower price floors and therefore more price flexibility, right?
- 19 A. I think generally I would agree the higher the -- or the
- 20 lower the fill, many times the higher the resultant cost.
- 21 Q. Now, the other way around, the higher the fill the lower
- 22 the price floor, correct?
- 23 A. Conversely that is normally true as well.
- Q. And when it came to its TELRIC proceeding, Ameritech didn't
- 25 want to use those fills, did it?

- 1 A. That's correct. It didn't, and I think --
- 2 Q. So for TELRIC purposes, Ameritech apparently didn't think
- 3 those fills would allow it to recover its investment, did it?
- 4 A. No, you brought up the phrase earlier of gaming the system,
- 5 and though you may not have used those exact words, our position
- 6 was that was exact -- they were trying to use their least cost
- 7 network to provide their retail services, and some more
- 8 expensive network to provide unbundled network elements and I
- 9 think the Commission agreed that the network is the network is
- the network, and if you can run it efficiently for your retail
- 11 services, you can run it efficiently for your wholesale
- 12 services.
- 13 Q. So the Commission didn't let Ameritech game the system?
- 14 A. Well, I think the Commission made the proper decision with
- 15 respect to the discriminatory standards in the Act.
- 16 Q. Does Cincinnati Bell use any different fill factors in its
- 17 LRSIC studies than it's proposing here?
- 18 A. I don't know. And the reason I don't know is, for example,
- 19 we have asked to see the LRSIC studies for services like ADSL,
- 20 and we haven't seen those.
- 21 Q. You saw all the loop studies, didn't you?
- 22 A. I saw all the loop studies, I haven't seen all of your
- 23 LRSIC services.
- 24 Q. You saw all the unbundled loop LRSIC studies, didn't you?
- 25 A. My understanding is you didn't provide LRSIC studies for

- 1 unbundled elements, you provided them for retail services, so I
- 2 saw the LRSIC studies you provided. My only point is that there
- 3 are LRSIC studies I have not seen. I don't know what fill
- 4 factors are included.
- 5 Q. You didn't see the ADSL, but you saw all the retail
- 6 services that included loops, didn't you, other than ADSL?
- 7 A. Well, I only bring up ADSL because that's one I know of.
- 8 All I'm saying is there are a subset of LRSIC studies I have
- 9 seen, there are a subset of LRSIC studies I have not seen. In
- 10 the LRSIC studies I've seen that were filed in this case, the
- 11 fill factors were the same.
- 12 Q. Okay. So those LRSIC studies you've seen that involved a
- 13 loop, Cincinnati Bell used exactly the same fill factors it's
- 14 proposing here?
- 15 A. That's my general recollection, yes.
- 16 Q. So Cincinnati Bell's not here attempting to use two
- 17 different sets of fills for two different purposes, is it?
- 18 A. No, it's attempting to use a bad fill for both.
- 19 Q. Now, this isn't the first time that you have proposed that
- 20 Ameritech rates be applied to Cincinnati Bell, is it?
- 21 A. I'm not suggesting in this case that Ameritech rates be
- 22 applied to Cincinnati Bell, I'm suggesting that cost determining
- 23 factors such as fill shouldn't vary between companies, they
- 24 should vary only between pieces of equipment. The extent to
- 25 which a company chooses or is able to use that equipment in the

- 1 most efficient manner is another issue, but I'm not suggesting
- 2 that any Ameritech rates be applied to south -- to Cincinnati
- 3 Bell in this case.
- 4 Q. Now, you testified approximately two years ago in an
- 5 arbitration between MCI and Cincinnati Bell, didn't you?
- 6 A. Was that only two years ago? It seems much longer, but
- 7 yes, I'll accept that.
- 8 O. And in that hearing your testimony was that Cincinnati Bell
- 9 should use Ameritech's TELRIC rates as interim rates, wasn't it?
- 10 A. That was my recommendation given the fact that we had only
- 11 seen the CBT cost studies for a very, very short period of time,
- 12 without the ability to do discovery in deposition format to
- 13 better understand them.
- 14 Q. And in that proceeding, the Commission rejected your
- 15 proposal because there was no evidence in the record to support
- 16 those rates, correct?
- 17 A. I don't remember their reasoning behind rejecting it, but
- 18 yes, they did reject that recommendation. But again, that
- 19 recommendation was a secondary -- I made that recommendation
- 20 because we didn't have time to do the analysis we have done in
- 21 this case.
- 22 Q. Nevertheless, the Commission rejected the proposal, didn't
- 23 it?
- 24 A. Well, what it did was it rejected part of it, because our
- 25 proposal was that we have another proceeding to determine CBT's

- 1 actual costs, given the time to do it right, and they rejected
- 2 the proxy of the Ameritech rates, but they obviously instigated
- 3 this proceeding within which to determine the long-term rates.
- 4 Q. Now, let's stay with distribution for a minute. You're
- 5 recommending 85 percent. Is it your recommendation that
- 6 Cincinnati Bell simply substitute 85 percent in its cost studies
- 7 where it uses 35 percent?
- 8 A. My recommendation is that 85 percent is the appropriate
- 9 fill factor. If it could be shown that the CBT cost studies are
- 10 built in such a fashion where simply substituting that 85
- 11 percent wouldn't accurately portray the costs, I certainly would
- 12 need to look and understand that, and if that is the case then I
- 13 think it would need to be changed in those areas as well.
- 14 Q. So if we had a given network design, if we simply changed
- the fill factor, doesn't that imply that I have much larger
- 16 demand for that same network?
- 17 A. No.
- 18 Q. Well, if I have a network that has, say, a thousand loop
- 19 capacity, and I apply a fill factor of 35 percent, doesn't that
- 20 imply I have 350 customers?
- 21 A. Well, I think at that point you will have done your study
- 22 exactly the opposite way you should have done it. The way you
- 23 should have done it is determined again how many customers you
- 24 have out there and determine the best least-cost facility with
- 25 which to provide them service, understanding that 85 percent is

- a sustainable fill on a given piece of equipment, you would
- 2 design your network to accommodate that fill. So your demand
- 3 doesn't change. Perhaps the size of your cable would change in
- 4 that instance.
- 5 Q. Well, your 85 percent assumes that the fill on the network
- 6 that I've designed would be 85 percent, doesn't it?
- 7 A. No, it doesn't.
- 8 Q. Well, then it's not the right fill, is it?
- 9 A. Well, let me explain that. The -- and I think not to try
- 10 to jump ahead to where you're going, but I think we're talking
- about the issue of the size of cable that's assumed within the
- 12 CBT cost studies. What I've suggested is that on any given
- 13 piece of cable, 85 percent is a sustainable level of fill. If
- 14 that means that CBT needs to go back into its study and use
- 15 smaller cables, understanding that it can utilize them more
- 16 effectively, instead of using only 35 percent of them can use 85
- 17 percent of them, then I think that's a change that could likely
- 18 need to be made. I need to understand that in more detail.
- But I'm not suggesting that CBT should use the same cable
- 20 and assume that it has some greater level of demand, that would
- 21 not be the accurate way to do the study.
- 22 Q. That's what I was trying to ask you.
- So we can't just plug in a new fill factor, we need to look
- 24 at the whole network design?
- 25 A. Well, you have to look at the way the model determines

- 1 costs associated with a given cable and the way it utilizes
- 2 fill. It's more specific to the model than it is the way the
- 3 proper TELRIC study is done. We have already discussed how a
- 4 proper TELRIC study is done. I think the contention I'm
- 5 beginning to understand from CBT's side is that it would need to
- 6 go back in and change the size of cable and I need to understand
- 7 that better, but if indeed that were true, and proven, then
- 8 that's a legitimate change.
- 9 Q. Okay. And you make a good point, that we can't just assume
- 10 that a fill factor translates from model to model, can we, we
- 11 need to understand how it's used?
- 12 A. I think a fill factor is what it is. What we have
- identified in the CBT studies, or what I think you're suggesting
- 14 we have identified, is that the way CBT's sizes its cables in
- determining, getting back to that per pair, per foot investment,
- is dependent and interdependent with the fill factor, and hence,
- 17 if you change one the other needs to change. What I would
- 18 suggest is do fill the right way and if you need to go back in
- 19 and change that size of the cable, then so be it, but fill
- 20 should be applied as fill is required, which is to unitize the
- 21 investment over demandable units.
- Q. We need to be careful that if we change fill, that it's
- 23 done appropriate to the model in which the fill is used, don't
- 24 we?
- 25 A. I wouldn't say it that way. I'd say do fill the right way.

- 1 If you need to make changes to your model to recognize that,
- 2 then do that. Fill is an important -- one of the most
- 3 important, if not most important assumptions in a TELRIC study,
- 4 many times, so I wouldn't change the way you do fill to
- 5 accommodate some other part of the model. I'd do fill the right
- 6 way and then change the other part of the model.
- 7 Q. Now, if we were to take a fresh look at the network and put
- 8 in smaller cables, that would result in different investments,
- 9 wouldn't it?
- 10 A. Different, yes. I'm not certain whether they would be
- 11 higher or lower.
- 12 Q. Well, on a per-pair basis, small cables are more expensive
- 13 than larger cables, aren't they?
- 14 A. Yes, but as I pointed out in my supplemental testimony,
- 15 small cables have fallen in price significantly -- to a more
- 16 significant degree than have large cables.
- 17 Q. But even though they fall in price, they're still more
- 18 expensive than larger cables?
- 19 A. I have not done that analysis.
- 20 Q. That's generally true, though, isn't it, that there's
- 21 certain costs that don't vary by cable size?
- 22 A. There are costs that do not vary by cable size.
- 23 Q. And so there's not a linear relationship between the size
- 24 of the cable and the investment that's required to place that
- 25 cable?

- 1 A. I've not done that analysis. I assume -- That's possible.
- 2 Q. In fact, there's not even a linear relationship between
- 3 maintenance expense and the size of the cable, is there?
- 4 A. I struggle only with trying to understand the significance
- of the question, but maintenance probably is not a -- The size
- of the cable is probably not a determinative factor in the level
- 7 of maintenance.
- 8 O. And is the level of maintenance a consideration in the
- 9 original design of a least cost, most efficient, forward-looking
- 10 network?
- 11 A. Yes, it should be.
- 12 Q. Would you agree with me that because of the discrete sizes
- 13 that cables come in, that there is a certain amount of potential
- 14 fill lost because of that?
- 15 A. Yes, there is what we generally refer to as a breakage
- issue which, though it sounds like it's talking about defective
- 17 pairs, it's not, it's talking about breakage in investment,
- 18 whereas there are discrete sizes of cables.
- 19 Q. So if I need five pairs, I might have to put in 25 because
- 20 that's the smallest standard cable size?
- 21 A. That's possible, though we have to understand that the
- 22 fills and the way the ACAR does the fills is it determines them
- on an average across the network. So in some instances you're
- liable to have cables that are filled at a hundred percent, some
- 25 may be filled at 60 percent, but the average across the network

- is 85 percent. You can't look at any given cable to determine
- 2 the level of fill on a network basis.
- 3 Q. But you would agree that there's some loss in fill due to
- 4 the breakage phenomena?
- 5 A. Yes. The ACAR factors specifically account for breakage.
- 6 Q. Okay. But you haven't shown us anything that
- 7 mathematically demonstrates that, have you?
- 8 A. No, I haven't shown you anything, no.
- 9 Q. Would you agree with me that an actual fill, if it's the
- 10 same as what you would expect to see in a forward-looking
- 11 network, would be an appropriate fill to use for a TELRIC study?
- 12 A. It's an unlikely scenario, but the way I think I would say
- that is there is an appropriate fill to use in a forward-looking
- 14 network. If you found a cable in your network that happened to
- 15 have that fill, using the two would be the same -- would make no
- 16 difference.
- 17 Q. Well, the fact that it's the current fill doesn't mean it
- wouldn't also be the forward-looking fill, correct?
- 19 A. I would suggest it has no bearing on whether it would be or
- 20 wouldn't be.
- 21 Q. Were you present at Mr. Meier's deposition last year?
- 22 A. No.
- 23 Q. So you wouldn't be able to testify as to his demeanor when
- he answered a given question, would you?
- 25 A. His demeanor?

- 1 Q. Right.
- 2 A. No. I did see Mr. Meier's cross, and he seemed jovial, but
- 3 other than that I have no -- I have no recollection of his
- 4 demeanor.
- 5 Q. Well, on Page 25 of your direct testimony you quote from
- 6 his deposition, right?
- 7 A. Yes. I placed in there what he said.
- 8 Q. And you say right after that quote that he prefaces his
- 9 original answer. I take that you mean the sentences up to the
- 10 word "No"?
- 11 A. Let me familiarize myself with what I've said there.
- I think generally, yes, that's what I meant by "preface".
- 13 Q. And so you wouldn't know, because you weren't there, that
- 14 he was joking up until he said the word "No", right?
- 15 A. I wouldn't know that he was or that he wasn't. I'm
- 16 simply -- My understanding is that he was under oath and that
- the things he said were supposed to be truthful.
- 18 Q. And the last sentence says that he would put enough out
- 19 there so he'd never have to reinforce it, didn't he?
- 20 A. Well, he says two things there, and I can just give you my
- 21 interpretation of what he says. What he says speaks for itself.
- 22 But my interpretation of what he says was, and I'll paraphrase
- 23 significantly, I would do it to the extent to which I could, I'd
- use it as efficiently as I could, 12 strands in a cable, I'd use
- 25 12 strands if I could; but then he says, well, got to watch my

- 1 answer, I have to make sure that there's enough out there so
- 2 that I don't have to reinforce it.
- 3 Q. Well, he never did say I'd use 12 strands if I could, did
- 4 he? That's not there.
- 5 A. Well, 11 out of 12, I apologize.
- 6 Q. And there's no system that uses 11 fiber strands, is there?
- 7 A. Yes, I think there is. There's combinations of systems
- 8 that could use any number. I mean, some systems use a single
- 9 fiber.
- 10 Q. But he said he would never want to have to reinforce it,
- 11 didn't he?
- 12 A. Yes, he said both things in that -- in that paragraph.
- 13 Q. Have you read his testimony from this hearing?
- 14 A. Yes, though not this week.
- 15 Q. And you have a discussion that precedes this about 85
- 16 percent fill on drops. Do you recall he testified in this
- 17 hearing that he never projected 85 percent as a fill?
- 18 A. I'm not familiar with that testimony, no. My -- My
- 19 testimony speaks to a particular data request, not to
- 20 Mr. Meier's testimony.
- Q. Wouldn't his live testimony here in this hearing be the
- 22 best evidence of what he really thought or what he meant?
- MS. SANDERS: Your Honor, I object. Are we calling
- 24 for a legal conclusion here about the best evidence for the
- 25 Commission? I don't think Mr. Starkey is here to -- he's

- 1 addressing a certain amount of deposition testimony for
- 2 Mr. Meier. It speaks for itself.
- 3 THE EXAMINER: Well, I think it's a fair question if
- 4 Mr. Starkey has included specific parts of the deposition and
- 5 then offers an opinion on what Mr. Meier meant in the deposition
- 6 and there's something that is more recent on which he underwent
- 7 cross-examination, I think that is a fair question, so I will
- 8 overrule it.
- 9 THE WITNESS: Can I hear that one more time? I'm
- 10 sorry.
- 11 (Question read back as requested.)
- THE WITNESS: I guess I do have some experience with
- 13 what's good evidence and what's bad evidence. What I would
- 14 suggest is many times the first things people say are the best
- 15 evidence and that sometimes, some time later they come back
- 16 after speaking with other folks they say something different,
- 17 then you have to take both in -- you have to take both in toto
- 18 to really understand what they were saying.
- 19 BY MR. HART:
- 20 Q. You say in your testimony at Page 24 that the fills in
- 21 Mr. Mette's study weren't chosen by engineers. What's your
- 22 basis for saying that?
- 23 A. My basis was Mr. Mette's deposition. And though I can't
- 24 point you to a specific -- can't point to a specific point in
- 25 that deposition, I will paraphrase. My understanding was that

- 1 the engineers provided a view of the actual fill on the network,
- 2 and I'm thinking specifically now to sort of the DLC -- that was
- 3 provided in discovery, there is a DLC output sheet that shows --
- 4 and I forget the name of the system, but it shows the level of
- 5 fill on the current network that provided a number, and my
- 6 understanding that was that Mr. Mette added a couple of
- 7 percentages on to that to get to the 70 percent.
- 8 So while I think the engineers did provide the actual fill,
- 9 Mr. Mette made the final decision with respect to the
- 10 adjustments.
- 11 Q. Not only that, Mr. Meier has testified that he agrees that
- 12 the correct fills were used, correct?
- 13 A. That's very possible. I didn't suggest that he didn't. I
- 14 simply said that I think Mr. Mette chose the fills, which I
- 15 think is true.
- 16 Q. With respect to electronic fills, let's talk about digital
- 17 loop carrier. There's really two components, aren't there;
- there's a common component and then there's a line component?
- 19 A. I think that's a fair characterization, yes.
- 20 Q. And the fills on those two components might be different,
- 21 wouldn't they?
- 22 A. That's possible. I think what I would add to that is that
- 23 fills, like we talked about earlier, you can't look at a
- 24 common -- you can't look at a given cable to determine what the
- 25 fill is going to be as a sustainable level across the network.

- 1 The ACAR fills are an average of what the engineers believe they
- 2 can achieve. So while any given piece of equipment may differ,
- 3 either on the high side or the low side, those are the given
- 4 average for the network.
- 5 MR. HART: Your Honor, I would move to strike that
- 6 response as gratuitous and not responsive to my question.
- 7 THE EXAMINER: Motion is denied.
- 8 BY MR. HART:
- 9 Q. With respect to fiber, I take it you're changing your
- 10 testimony so you really don't recommend a 33 or a 67 percent
- 11 fill for fiber?
- 12 A. Well, there are two questions there; am I changing my
- 13 testimony, and what am I recommending.
- Can you tell me why you -- I mean, I guess I need to
- understand why you think I'm changing my testimony, because I'm
- 16 not.
- 17 Q. Well, haven't you testified that you think that the fiber
- ought to be unitized to the customers who are being served on
- 19 that fiber?
- 20 A. My recommendation with respect to fiber is that the fill
- 21 factors associated with the electronics that light the fiber be
- 22 used as the fiber fill factor.
- 23 Q. Okay.
- 24 A. That hasn't changed.
- Q. Well, on Page 22 you have a chart that says Ameritech's

- 1 ACAR is 33 percent or 66 percent on fiber.
- 2 A. Yes. I'm simply representing what the ACAR factors are.
- 3 Later in my testimony I then provide my recommendation with
- 4 respect to what the fiber fills should be. That's not a change.
- 5 Q. Well, on Page 29, Lines 6 and 7, you recommend that the
- 6 Commission adopt all of the ACAR fills, don't you?
- 7 A. Appropriate -- Apparently I used the word "all" too
- 8 loosely. My intention was to suggest that the ACAR factors,
- 9 except for fiber, which I specifically describe in the pages
- 10 that precede that.
- 11 Q. But you didn't say that in your testimony?
- 12 A. As I think you've pointed out, I apparently used the word
- 13 "all" too loosely.
- 14 Q. Now, when we -- Under your recommendation, you would apply
- 15 all of the fibers in the cable to that electronic investment,
- 16 wouldn't you?
- 17 A. I'm sorry, could you say that one more time?
- 18 Q. If we had a cable that was a 12-strand cable and it only
- 19 had four fibers in use, you would need to apportion all 12
- 20 fibers to the electronics that were using that cable, wouldn't
- 21 you?
- 22 A. You would apportion -- Yes. Let's take a specific piece of
- 23 equipment. And I'm not suggesting -- Let's say there's a
- 24 12-fiber strand in the network. And let's take a Fujitsu FACTR
- 25 system on an OC3 basis uses four of those 12. I'm not

- 1 suggesting that all 12 of those fibers be associated with that
- 2 OC3 system because it's likely that that piece of fiber is being
- 3 used for other things, as well. Many times fiber strands are
- 4 used not only as outside plant investment in terms of the loop,
- 5 they're also used -- the same fiber is used to support
- 6 interoffice services and any number of other services.
- What I'm suggesting is that to unitize the fiber associated
- 8 with any given system, the electronics on each side of that
- 9 system are the determinative factor in the number of customers
- 10 that piece of fiber is actually supporting.
- 11 Q. We have to recover the cost of the vacant fiber somewhere,
- 12 too, don't we?
- 13 A. The vacant fiber, I assume you mean those other eight that
- 14 I am suggesting could be used by other systems.
- 15 Q. But if they're not in use, they're still an investment,
- 16 aren't they?
- 17 A. They are an investment whether they're in use or not.
- 18 Q. And they have to be recovered somewhere?
- 19 A. That investment should be recovered, yes.
- 20 Q. And shouldn't we recover it from the system that's using
- 21 the four out of the 12 fibers?
- 22 A. Are you suggesting that is the only system that -- that is
- 23 the only system on that piece of 12-fiber cable?
- 24 Q. If they're vacant, I would assume so.
- 25 A. Well, while I might disagree with that assumption, it's not

- 1 important.
- 2 The -- I guess what I am saying is that -- The answer to my
- 3 question is no -- to that question is no.
- 4 Q. So those should go unrecovered?
- 5 A. No.
- 6 O. So where do we recover them?
- 7 A. You recover them from the systems that are using them.
- 8 Q. They're vacant, they aren't being used so, Mr. Starkey,
- 9 where do we recover that cost?
- 10 A. I'm not trying to play games with you, Mr. Hart. What I am
- 11 suggesting is you've got a 12-fiber strand. You're suggesting
- 12 that only four of those are being used by a system and what I am
- 13 suggesting is that's a very unlikely scenario.
- Well, first of all, using only 12 fibers is a very unlikely
- 15 scenario. But fiber is generally deployed in a network so that
- it supports a number of different systems.
- 17 Unlike copper cable, it's not -- fiber is rarely
- 18 specifically engineered to serve a particular location. It
- 19 generally is in a ring architecture. It generally supports a
- 20 number of different systems. What I am saying is unitize the
- 21 four fibers that support that system based upon the unitization,
- 22 the demandable units that that system supports. If it -- that
- 23 fiber likely supports another system, as well. Unitize those
- 24 fibers over that system. That's the way in which you would
- 25 unitize a given fiber cable.

- 1 Q. Well, let's say I have a 48-fiber system -- 48-fiber cable,
- 2 and 36 of them are in use. Where do I recover the cost of the
- 3 other 12?
- 4 A. What you're getting at is the fact that fill in fiber is
- 5 more complex than it is in copper cables, and with that I would
- 6 agree in that there's not a simple one-to-one mapping of -- like
- 7 there is in copper, one copper cable or one copper pair, one
- 8 circuit. The proper way to do fill in a fiber cable is to
- 9 determine the demandable units that that fill supports.
- 10 If the demandable units -- If -- Let's take this very
- 11 unlikely scenario that you have a 48-strand fiber cable and it
- 12 supports only one OC3 system which hangs off of it. The units
- 13 that should be used to recover that investment are however many
- 14 demandable units there are supported by that system. If that is
- the only system, then that is the way you would recover it.
- What I am suggesting is that is a highly unlikely and not a
- 17 forward-looking, least cost scenario.
- 18 Q. My hypothetical was a 48-fiber cable that had 36 fibers in
- 19 use, which is the two-thirds fill, which is what the Commission
- 20 approved in Ameritech. Are you telling me that's an unlikely
- 21 situation? Actually, it wouldn't be two-thirds, it would be --
- yeah, 32 would be two-thirds of 48.
- 23 A. I'm not telling you that's an unlikely scenario
- 24 necessarily. I don't know the extent to which that is likely or
- 25 unlikely.

- 1 Q. Well, let's assume we have that.
- 2 A. Okay.
- 3 O. That there are 48-fiber cables and 32 strands are in use.
- 4 How do the remaining 16 get recovered?
- 5 A. They should be recovered over all of the demandable units
- 6 over that particular piece of cable, the entire cable.
- 7 Now, that gets more difficult as you talk about things like
- 8 sharing interoffice cable on an OC48 basis, for example, in that
- 9 pair of fiber cable with an OC3 system that perhaps supports a
- 10 given FACTR system.
- 11 What I'm suggesting is the proper way to accommodate for
- 12 fill on a given fiber cable, determine the total demandable
- 13 units that that fill supports -- that that cable supports, and
- 14 you recover the investment over those demandable units.
- 15 Q. So I ought to recover all of my fiber, vacant and used,
- 16 right?
- 17 A. That is the purpose of a fill factor.
- 18 Q. So you're not saying I should limit my recovery to the
- 19 fibers that are actually in use?
- 20 A. That's not my intention, given that you're using the fiber
- in the least cost, forward-looking manner.
- 22 Q. What does that mean? How much fiber would be used?
- 23 A. As much as is required to run the systems that you need.
- Q. And that might be two-thirds, it might be one-third, right?
- 25 A. No, I wouldn't agree with that.

- 1 Q. But you can't give me a number?
- 2 A. Well, I think we're talking about a multitude of scenarios.
- 3 We're talking about the placement of 148 -- 144-strand fiber,
- 4 we're talking about the placement of 12-strand fiber, 48 strand
- 5 fiber using OC3 and OC48 systems and OC12 systems.
- To pull a number out of my hat wouldn't do you any good.
- 7 What I am suggesting is there are a number of fibers that are
- 8 needed to support given systems. That's a known quantity.
- 9 Design your network to where you have as few of those fibers as
- 10 possible to run your system. That's your least cost,
- 11 forward-looking network.
- 12 Q. And you can't tell me what that number is, can you?
- MS. SANDERS: Your Honor, I object. He's asked that
- 14 several times. Mr. Starkey has explained it several times.
- 15 THE EXAMINER: All right.
- MR. HART: He could say "yes" or "no", he could have
- 17 said "yes" or "no" to almost every one of my questions and I
- 18 keep getting speeches that are not responsive to the questions.
- 19 I would just like a simple answer.
- 20 THE EXAMINER: Well, I think he's answered it
- 21 sufficiently. I'll sustain the objection.
- 22 BY MR. HART:
- 23 Q. Let's go on to the next topic in your testimony, which is
- 24 Fujitsu FACTR equipment.
- THE EXAMINER: Let's go off the record just a minute.

- 1 (Recess taken.)
- THE EXAMINER: Back on the record.
- 3 Mr. Hart.
- 4 MR. HART: Thank you, your Honor.
- 5 BY MR. HART:
- 6 Q. Mr. Starkey, I want to move to the topic of the Fujitsu
- 7 contract, specifically the discounts.
- 8 Would you agree with me that that contract provides
- 9 different discount levels for different types of equipment?
- 10 A. Yes, I think that's a fair characterization.
- 11 Q. And that specifically the discount on the FLM equipment is
- 12 different than the discount on the FACTR equipment?
- 13 A. Well, when we talk about discounts, I assume you're
- 14 specifically referring to the discount that's applied off the
- 15 base price.
- 16 Q. Right.
- 17 A. In my testimony I have suggested that the prices themselves
- 18 have been discounted over time to reflect sort of the decreasing
- 19 cost nature of the industry -- or, at least of that portion of
- 20 the industry.
- 21 Q. No, my question to you is: Is the discount different on
- 22 the FLM equipment than on the FACTR equipment? That's all I'm
- 23 asking you.
- 24 A. If you're specifically referring to the discount that is at
- 25 the top of that column on that page, yes, I would say that's

- 1 different. I was simply trying to differentiate between the two
- 2 different types of discounts that I have discussed in my
- 3 testimony.
- 4 Q. Okay. And there's no discount at all on remote terminal
- 5 cabinets, is there?
- 6 A. Would you point me to that specific unit?
- 7 Q. Well, let me ask you to point out where there is a
- 8 discount, if you can.
- 9 A. I think I could, given appropriate time. I guess in my --
- 10 Did somewhere in my testimony I suggest there was a particular
- 11 discount that applied to the cabinet?
- 12 Q. I'm asking whether you know whether there's a discount on
- 13 cabinets or not.
- 14 A. And again, I have to differentiate my answer. There may
- not be, and I can't point to a specific cabinet where the
- 16 percentage discount at the top of the table is applied. If I
- 17 had that, I could review the first two amendments to the
- 18 agreement to see if it has been discounted over time.
- 19 Q. Okay.
- 20 A. I have not done that analysis specifically for the cabinet.
- 21 Q. So on Page 34 of your testimony where you recommended an 11
- 22 percent discount be applied to DLC equipment, should we amend
- 23 that to say that the discount appropriate to the type of
- 24 equipment should apply?
- 25 A. Can you point me to that page number again?

- 1 Q. Page 34.
- 2 A. Direct testimony?
- 3 O. Yes.
- 4 A. Could you -- I apologize, because my testimony has
- 5 different line numbers; could you read me the sentence that
- 6 says --
- 7 Q. I believe it's in Line 6 where you recommend an 11 percent
- 8 discount. And my question for you is: Shouldn't we apply the
- 9 discount applicable to the type of equipment, which is not the
- 10 same for each piece of equipment?
- 11 A. First we have to realize that I have revised this
- 12 recommendation in my supplemental testimony.
- 13 Q. I understand that.
- 14 A. So this is no longer my recommendation.
- But I don't think that that is necessarily true, no,
- 16 because what I have shown in my supplemental testimony is that
- 17 not only do the discounts that apply within the Fujitsu FACTR
- 18 contract -- not only are those relevant, but that the decreasing
- 19 cost nature in general has shown that base prices are reduced
- 20 over time for at least all of the equipment that I looked at.
- Now, I did not look specifically at the cabinet, perhaps;
- 22 but that, in general, my review of the contract suggests that a
- 23 forward-looking reasonable estimate of what CBT will pay for
- 24 Fujitsu FACTR and FLM equipment can be represented by a 17
- 25 percent discount off the base prices that are used in the

- 1 current contract.
- Q. Well, that's not my question, sir. I asked you whether we
- 3 should apply the actual discounts that apply to the types of
- 4 equipment we're investing in.
- 5 A. Well, that's actually, I don't think, what you did ask me.
- 6 I think you asked me whether we should apply the 11 percent to
- 7 that equipment and what I explained to you was that my
- 8 recommendation had changed.
- 9 Q. And even if your recommendation is 17 percent, we shouldn't
- 10 apply that to all types of Fujitsu equipment, should we?
- 11 A. Again, I answered that, yes, we should.
- 12 Q. Well, when Cincinnati Bell buys equipment, it's going to
- 13 pay the price in the contract, isn't it?
- 14 A. Well, when you say "the price in the contract", that
- 15 contract has been amended twice, so it will pay the price of the
- 16 most current contract. It's been amended because -- well, let
- 17 me not -- let me not project as to why it was, but it was
- 18 amended, and each time it was amended, the prices went down.
- I interpret from that that this is a decreasing equipment
- 20 base, decreasing cost equipment base, and apparently
- 21 occasionally CBT returns to the vendor to renegotiate discounts
- 22 and base prices from which those discounts will be applied.
- 23 That's what the amendments within the contract suggest to me.
- 24 Q. And the contract still applies different discounts to
- 25 different types of equipment, doesn't it?

- 1 A. Again, we'd have to differentiate between the two types of
- 2 discounts. It applies a discount to the base price that's
- 3 included in those columns we spoke about earlier and, yes, I
- 4 believe those do differ by pieces of equipment. The contract
- 5 also includes discounted base prices over time due to
- 6 renegotiation, it appears.
- 7 So I would suggest I haven't done the analysis to determine
- 8 exactly whether those discounted base prices are different for
- 9 pieces of equipment; what I have suggested is my overall review
- 10 suggests that 17 percent is a reasonable, if not conservative,
- 11 estimate of what that discount percentage should be.
- 12 Q. Well, it's still speculation on your part, isn't it?
- 13 A. No, it's not.
- 14 Q. Well, Cincinnati Bell didn't make the \$30 million discount
- 15 for 1997 and '98, did it?
- 16 A. I don't know, nor is that relevant.
- 17 Q. Well, my question is not whether it's relevant. The
- 18 question is: Did it make it or not make it?
- MS. SANDERS: Your Honor, he just answered that
- 20 question. He said he didn't know.
- THE EXAMINER: He said he didn't know.
- 22 BY MR. HART:
- 23 Q. Let's talk about integrated digital loop carrier.
- Are you familiar with MCI's contract with Cincinnati Bell?
- 25 A. Generally.

- 1 Q. Am I correct that in that contract, MCI agreed that if it
- 2 ordered a loop that would serve an integrated digital loop
- 3 carrier, that either it would be moved to a copper pair or MCI
- 4 would pay to demultiplex that loop?
- 5 A. That's possible.
- 6 Q. So in the agreement between Cincinnati Bell and MCI, it
- 7 does not provide that MCI would ever get a loop that's
- 8 provisioned on integrated digital loop carrier, does it?
- 9 A. When you suggest forever, that brings me to the point of
- 10 why I don't think the contract is relevant in this proceeding,
- 11 because that contract has an expiration date. So I would
- 12 disagree with your contention that it never will get access to
- 13 an integrated digital loop carrier.
- 14 Q. It won't in that contract, will it?
- 15 A. I don't know.
- 16 Q. Now, you are recommending that Cincinnati Bell use
- 17 integrated digital loop carrier as the cost base in this
- 18 proceeding, aren't you?
- 19 A. The only reason -- Yes. The only reason I would qualify
- 20 that answer is that what I am suggesting, my position is, that
- in designing the forward-looking network before you determine
- 22 the investment associated with it, you should use integrated
- 23 digital loop carrier as the -- as the DLC platform on which that
- 24 network would be designed for both bundled and unbundled loops.
- 25 Q. And if we were to use integrated digital loop carrier, we

- 1 would have to include in the investment FLM 150 equipment in the
- 2 central office, wouldn't we?
- 3 A. Well, here you're getting to how would you design a network
- 4 using integrated digital loop carrier; and, yes, integrated
- 5 digital loop carrier requires the placement of an FLM150 in the
- 6 network, in the central office. What I have suggested in my
- 7 testimony is that you should use the investments associated with
- 8 the retail loop and in that retail loop study you included the
- 9 investment associated with that FLM 150. That's completely
- 10 consistent.
- 11 Q. So the answer to my question was "yes"?
- 12 A. I'd stand by my original answer.
- 13 Q. And the FLM 150 presents a DS1 interface, doesn't it?
- 14 A. That's a little simplistic. FLM 150 is an OC3 to DS1
- 15 multiplexer. It provides channels at the DS1 level after it has
- 16 multiplexed given -- a given data stream.
- 17 Q. You mean actually after it has demultiplexed an OC3 data
- 18 stream?
- 19 A. Did I say "multiplexed" as opposed to "demultiplexed"?
- 20 O. Uh-huh.
- 21 A. I apologize. Demultiplexed.
- 22 Q. So if one were to receive a DSO unbundled loop from an
- 23 FLM 150, you would need to have a minimum of a DS1?
- 24 A. Not necessarily.
- Q. Well, then you have to demultiplex it again, don't you?

- 1 A. One of those two options must exist, yes.
- 2 Q. Okay. And if you demultiplex it, you might as well use
- 3 universal digital loop carrier, shouldn't you?
- 4 A. No.
- 5 Q. Well, you need to pay for a demultiplexer, don't you?
- 6 A. Well, as we discussed at deposition, there are more than
- 7 one way, to proverbially skin a cat, but in this instance to
- 8 demultiplex and disaggregate a DSO from an integrated digital
- 9 loop carrier. You're speaking, I think, particularly about one
- 10 of those instances wherein you would pull a DS1 from the
- 11 FLM 150. There are other methods with which you could unbundle
- 12 that DSO circuit.
- 13 Q. And whichever method you use requires some form of
- 14 demultiplexing?
- 15 A. Any time you use digital loop carrier, especially the FACTR
- 16 system, that runs at an OC3 level, whether you use it in the
- integrated or the universal mode, you must demultiplex at some
- 18 point.
- 19 Q. And in the integrated mode, the switch does that, doesn't
- 20 it?
- 21 A. No. The FLM 150 takes the first cut at it. Gets it from
- OC3 to DS1, and then the switch goes from DS1 to DS0.
- 23 Q. So was I correct that the DS1 to DS0 demultiplexing takes
- 24 place in the switch in integrated mode?
- 25 A. Perhaps -- Oh, in integrated mode, yes. Perhaps --

- 1 Q. So the answer to my question, again, was "yes"?
- 2 A. Not exactly, because once you get to the FLM 150 and you
- 3 get to the DS1 interface level, you don't necessarily have to
- 4 take it to the switch. You can take it -- and this brings up a
- 5 point that it goes to the DSX1 cross-connect system before it
- 6 goes to the switch.
- 7 A DSX1 cross-connect system in the central office is
- 8 really -- you can think of it like a main distribution frame for
- 9 DS1s. You can go anywhere in the central office you want with
- 10 that DS1 once you get it to the DSX. Many times it goes to the
- 11 central office switch in an integrated mode but it doesn't have
- 12 to. It can go to a D4 channel bank, it can go to anywhere you
- 13 want to to do whatever you want with that channel. It's a very
- 14 flexible system.
- 15 Q. But it's still the switch that does the demultiplexing in
- 16 integrated mode?
- 17 A. Not necessarily.
- 18 Q. Now, a T1 or a DS1 signal has a higher cost than a DS0
- 19 signal, doesn't it?
- 20 A. That's asked very vaguely, but I think in general you could
- 21 think of it that way, yes. There are certain instances where
- 22 that wouldn't be true.
- Q. So if unbundled DSO loops were to be provisioned on a DS1,
- 24 before that's cost effective, you would have to have a
- 25 sufficient number of DSO loops coming from the same digital loop

- 1 carrier system, wouldn't you?
- 2 A. Cost effective for who?
- 3 Q. Whoever is buying those loops.
- 4 A. Not necessarily. Depends on what other alternative they
- 5 have and the cost of that alternative.
- 6 Q. Well, the cost of a DS1 is higher than a DS0, right?
- 7 A. Again, I have said in some instances that is true.
- 8 Q. In fact, the cost of a DS1 is higher than a universal mode
- 9 DSO, isn't it?
- 10 A. I guess the reason I struggle is because you are making
- 11 contentions that I have not seen made before and I don't know
- 12 that to be the case, no.
- 13 Q. So you think a DS1 signal could be provisioned cheaper than
- 14 a universal digital loop carrier DS0?
- 15 A. That's not what I said. I simply said you're making
- 16 contentions of fact that I don't know are fact. I simply don't
- 17 know.
- 18 Q. Well, let's assume that a DS1 signal on an integrated mode
- 19 would have a higher cost than a DSO in universal mode.
- 20 A. Let me write that down real quick. DS1 on an integrated
- 21 mode; is that correct?
- 22 Q. Yes.
- 23 A. And then a DSO on a universal mode. Okay. I'm with you so
- 24 far.
- 25 And you say the DS1 has a higher cost?

- 1 O. Let's assume that.
- 2 Wouldn't it -- If we were going to try to determine the
- 3 least cost method of provisioning DSO signals, wouldn't you need
- 4 to have enough DSO signals provisioned over that DS1 until the
- 5 cost per DSO was less than the cost of the DSO on the universal
- 6 system?
- 7 A. It's a complicated question. Give me a second.
- When you say "cost effective", and this is the reason I
- 9 struggle, when you say "cost effective", you must be comparing
- 10 two alternatives by suggesting that one is a lower cost
- 11 alternative than the other.
- And I think what you're suggest -- what you're asking me is
- in providing the least cost, forward-looking network and
- 14 assuming that we're doing that to provision a DSO channel,
- 15 wouldn't it be cheaper to use universal to derive that DSO than
- integrated to derive that DSO; is that the heart of your
- 17 question?
- 18 Q. That's part of it, yes.
- 19 A. Let me answer that part first then.
- I don't think that that is necessarily true because
- 21 whenever we look at designing our network, we design our network
- 22 based upon producing the demandable units of the total service.
- 23 I would define the service in this instance as the provision of
- 24 DSO channels for both retail, unbundled, whatever effort --
- 25 whatever way you needed to get that DSO.

- I don't think an analysis has been done by anyone to
- 2 suggest that that is cheaper on a DSO level using integrated --
- 3 or, using universal. What I think has been demonstrated in the
- 4 CBT study studies and the way they have designed them is that in
- 5 many instances, and in the retail instance, it's cheaper to use
- 6 integrated, and I think the studies show that.
- 7 What I am suggesting is if you took that total service as a
- 8 whole and designed it, I believe integrated would be cheaper on
- 9 a realistic basis.
- 10 Q. If you used the entire network demand.
- 11 A. That's what we've been talking about to this point in time.
- 12 That's the right way to do a TELRIC study.
- 13 Q. And there's a demand point at which it's cheaper to use
- 14 universal than it is a DS1 signal per loop, isn't it?
- 15 A. Well, again, there's a demand level where it's cheaper to
- 16 use copper than it is to use a DLC. Yes, I assume that because
- 17 you have chosen to use a DLC in your network -- I haven't
- 18 assumed that, I've actually done some research to see that
- 19 that's true -- but to make that a least cost, forward-looking
- 20 network. So that's a given. I'm assuming that's a given.
- 21 Q. So if a new entrant wants a single unbundled loop, it's
- 22 cheaper for that single unbundled loop to be provided on a
- 23 universal system than it is to provide a total DS1 signal off an
- 24 integrated system, isn't it?
- 25 A. Perhaps it is, but that's an irrelevant analysis when

- 1 dealing with TELRIC when you must cost out the total element
- 2 demand.
- 3 Q. Well, then we would need to know, wouldn't we, how many
- 4 unbundled loops that company is expected to order from a given
- 5 DLC site, wouldn't we?
- 6 A. No, I don't think that's true.
- 7 Q. Well, if they only wanted one at a given DLC site, you
- 8 would agree, wouldn't you, that they have to buy a whole DS1?
- 9 A. The reason I hesitate is we're deep into a hypothetical
- 10 here. What I am -- I think you and I are talking about two
- 11 different things. You're asking me about a -- Well, you have
- 12 asked me who different questions that talk about two different
- 13 things.
- 14 You've asked me what's the best way to provision the
- 15 network in general to do a total element long-run incremental
- 16 cost study, and I have told you that my opinion is that that's
- 17 integrated digital loop carrier.
- Now you're taking a specific example and saying wouldn't it
- 19 be cheaper in that one given example to do it a different way,
- 20 and what I am saying is perhaps that's true, but that's not what
- 21 we're here to study. We're here to study the provision of all
- 22 demandable units, the total element, long-run incremental cost.
- 23 So while that may be true, and to the extent I don't know
- 24 whether that's true, it is irrelevant.
- 25 Q. Well, can you answer my question, and that is: On a

- 1 per-loop basis, is it cheaper to buy a single loop over
- 2 universal versus integrated when you have to buy a DS1?
- 3 A. I don't know.
- 4 Q. And you've never done that analysis?
- 5 A. No, nor is it relevant to the analysis I have done.
- 6 Q. So you don't know how many given loops would have to be
- 7 purchased from a given DLC site until it was cheaper per DSO to
- 8 buy that total DS1, do you?
- 9 MS. SANDERS: Your Honor, I object. He has explained
- 10 this several times. This is the same question and we've circled
- 11 all the way back around and Mr. Starkey's already explained it.
- 12 THE EXAMINER: All right.
- MR. HART: It's a different question.
- 14 THE EXAMINER: It's a slightly different question, but
- 15 I think he's said he hasn't done the analysis and he doesn't
- 16 know. If he doesn't know the first part, I don't think he's
- 17 going to know your further extension of the same question.
- 18 BY MR. HART:
- 19 Q. Has MCI provided Cincinnati Bell with any forecasts of the
- 20 number of DSO loops it would expect to buy from any given DLC
- 21 site?
- 22 A. I don't know.
- 23 Q. Have you ever seen such a thing?
- 24 A. Such a thing as a forecast?
- 25 Q. A forecast from MCI of how many loops it would expect to

- 1 buy.
- 2 A. No. If I had, I might have known. I don't know.
- 3 Q. Do you know whether to use TR-303 system you need a minimum
- 4 of two DS1s?
- 5 A. We would have to explore that question. Do you mean a
- 6 minimum of two DS1s between the remote terminal and any central
- 7 office electronics or --
- 8 Q. Yes.
- 9 A. Well, let me continue with my question to understand your
- 10 question better.
- 11 Two DS1s between the central office and remote terminal
- 12 electronics to manage the band width of the OC3 system at stake?
- 13 O. Yes.
- 14 A. Yes, I think that is required. But those DS1s manage the
- 15 entire system, those are not specific to any given channel.
- 16 That's the beauty of the TR-303 system.
- 17 Q. If a separate carrier would want to manage a portion of
- 18 that system using its own TR-303 system, it would need those two
- 19 DS1s, wouldn't it?
- 20 A. No.
- 21 Q. Are you a technical expert on the FACTR system?
- 22 A. No, but I know what you've just said is not true.
- 23 Q. Have you ever provisioned a TR-303 system?
- 24 A. No.
- 25 Q. Are you an engineer?

- 1 A. I'm not.
- 2 Q. Did you ever build any telephone plant?
- 3 A. No.
- 4 Q. Let's turn to the topic of trenching, briefly.
- 5 In your original testimony you recommended a 42 cent per
- 6 foot rate for trenching at the bottom of Page 42; is that right?
- 7 A. That's correct.
- 8 Q. And that was based on two agreements you had reviewed
- 9 dealing with service wire placement?
- 10 A. That was part of the basis for my recommendation. I also
- 11 suggest that my experience dealing with other cost studies has
- 12 shown me that that's a reasonable estimate.
- 13 Q. And you haven't provided us with those other cost studies,
- 14 have you?
- 15 A. No, I have not. Like I suggested to you, they are
- 16 proprietary and I'm forbidden from doing so.
- 17 O. So I'm not allowed to see them?
- 18 A. Well, not from me, you're not.
- 19 Q. Now, those contracts that you referenced dealing with
- 20 service wire placement refer to drops, don't they?
- 21 A. Well, that's Mr. Mette's contention in his testimony. They
- 22 deal with service wire, which is generally considered to be
- 23 interchangeable with the word "drop", but it also deals with
- 24 other types of cable.
- 25 Q. And those contracts dealt with placing that wire through

- 1 what's called the plowing method, didn't it?
- 2 A. I would have to research that. I don't have that contract
- 3 with me. My understanding is there were also some hand
- 4 trenching costs associated with that.
- 5 Q. Well, plowing is different than trenching, isn't it?
- 6 A. Plowing is different than trenching.
- 7 Q. And it costs less to do plowing than trenching, doesn't it?
- 8 A. I don't know that that's always true, but it is possible.
- 9 Q. Let's go on to nonrecurring charges, which is the next
- 10 topic in your testimony.
- On Page 46 of your direct testimony you noted that you did
- 12 not have a combinations study to look at, correct?
- 13 A. What was that page number again? I apologize.
- 14 Q. Page 46.
- 15 A. Yes. I discuss, in fact, that there's no nonrecurring
- 16 combinations study.
- 17 Q. Since then, you've seen that study, haven't you?
- 18 A. The nonrecurring component to that study?
- 19 0. Uh-huh.
- 20 A. The reason I hesitate is because, no, I don't believe I
- 21 have. I believe Mr. Mette, in his deposition, suggested -- and
- 22 I apologize if I'm incorrect in this -- but I believe what
- 23 Mr. Mette suggested was that there was no charge associated with
- 24 the element in the contract called -- for combining those two
- 25 particular elements of the combination, the loop and the

- 1 transport. So I don't think I have the nonrecurring study for
- 2 the loop transport combination.
- 3 Q. Well, you have seen the nonrecurring studies for loops and
- 4 for transport, haven't you?
- 5 A. I have seen the nonrecurring studies for loop and for
- 6 transport.
- 7 Q. And you understand that those are the same nonrecurring
- 8 charges that would apply to the combination?
- 9 A. I did not understand that at the time that I wrote my
- 10 testimony, but due to Mr. --
- 11 Q. Since your testimony, you've understood that?
- 12 A. Due to Mr. Mette's deposition, yes, I understand that now.
- 13 The only reason I hesitated was I haven't seen a study for
- 14 combinations nonrecurring charges.
- 15 Q. Okay. You've seen the components, though, that would go
- 16 into that?
- 17 A. I understand that those are the components.
- 18 Q. Now, on the bottom of Page 46 you start the discussion of
- 19 OSS systems and mechanized ordering and so forth.
- Do you know how long Cincinnati Bell has had an electronic
- 21 ordering interface?
- 22 A. Not exactly, though through reading Mr. Mette's
- 23 cross-examination my understanding is that there is one in place
- 24 now but it hasn't been in place for a very long time.
- 25 Q. When you say "a very long time", what do you mean by that?

- 1 A. I didn't have a specific number in mind, but -- I didn't
- 2 have a specific number in mind.
- 3 Q. Has MCI established an interface with CBT electronically?
- 4 A. I don't know.
- 5 Q. Has MCI submitted fax orders?
- 6 A. I don't know.
- 7 O. Has MCI ever submitted an electronic order?
- 8 A. I don't know.
- 9 Q. Does CBT have the option of ignoring a fax order?
- 10 A. Yes.
- 11 Q. Oh, so we don't have to accept them anymore?
- 12 A. That wasn't your question. Your question was do you have
- 13 the option to ignore it, and the way that question was worded,
- 14 you do. I don't know what your -- I don't know what you're
- 15 asking me. You have the option to ignore it. If you have that
- 16 option legally, I don't know.
- 17 Q. Well, if CBT receives a fax order, won't they incur certain
- 18 costs in order to deal with that order, assuming they decide to
- 19 go ahead and provision it?
- 20 A. Generally, activities generate costs and there would be
- 21 activities with receiving a fax order.
- 22 Q. Okay. So it would be appropriate, wouldn't it, for
- 23 Cincinnati Bell to include in nonrecurring charges the cost of
- 24 dealing with orders in the manner in which they're received?
- 25 A. Not on a TELRIC basis, it would not, no.

- 1 Q. Well, let me ask you to assume that Cincinnati Bell does
- 2 not have the option of ignoring a fax order.
- 3 A. Okay.
- 4 Q. Is it then only allowed to charge what would be the cost of
- 5 an electronic order?
- 6 A. To answer that question, there are a number of factors.
- 7 The first factor is understanding that Ameritech -- I'm sorry, I
- 8 apologize -- CBT has instituted an electronic interface, we need
- 9 to understand the extent to which that electronic interface is
- 10 actually usable by competitors, the extent to which it actually
- 11 provides the necessary -- actually interface, the necessary
- 12 interface to provision what is actually needed to be
- 13 provisioned.
- Just by simply saying CBT provides an interface, if it's a
- really bad interface, people can't use it and, hence, they
- 16 decide to fax orders, I would suggest that that is a cause that
- 17 those fax orders are causative from the fact that you didn't --
- 18 aren't using the forward-looking network design associated with
- 19 an effective electronic interface.
- 20 So there are a number of variables that go into play there.
- 21 I can't simply say just because you receive fax orders, you
- 22 should be able to recover those costs in a nonrecurring charge.
- 23 Q. Well, do you know anything about Cincinnati Bell's
- 24 electronic interface?
- 25 A. Only what I have read in this case.

- 1 Q. Okay. So you don't know whether it's a good interface or a
- 2 bad interface?
- 3 A. And that's why I'm telling you I can't answer your
- 4 question.
- 5 Q. Let's assume it's a good interface but a carrier decides to
- 6 fax an order anyway. Isn't Cincinnati Bell entitled to recover
- 7 the cost of dealing with that order?
- 8 A. I think what we talked about in my deposition was the fact
- 9 that given those parameters and this hypothetical wherein, one,
- 10 the CBT interface is an effective method by which competitors
- 11 can order, provision, perhaps maintain, I think I saw Mr. Mette
- 12 suggest that there was a maintenance electronic interface, at
- 13 least in the queue if not already in operation, given the fact
- 14 that this is a way in which they can cost effectively do that,
- and they choose not to, then I think the proper way to do that
- 16 from a public policy perspective, and this gets away from cost
- 17 causation, but from a public policy perspective, perhaps a
- 18 tiered rate schedule. If you use the electronic interface, it's
- 19 this particular rate for a nonrecurring charge. If you fax an
- 20 order, given the fact that you could have used the electronic
- 21 interface and saved everybody costs, then there would be another
- 22 charge associated with that.
- 23 Q. Now, do you necessarily know that the electronic interface
- 24 would be cheaper than the manual?
- 25 A. The only reason I hesitate with that is I'm trying to think

- of any electronic interface I have ever used in ordering any
- 2 type of service where it wasn't easier, quicker, more reliable
- 3 and cheaper than if I had to call somebody on the phone. I have
- 4 never experienced that. So if, in fact, that were the case, it
- 5 would go against every intuitive understanding that I have.
- 6 Q. Well, that's from your perspective. But didn't that
- 7 electronic ordering system cost something to develop?
- 8 A. It's likely that it did.
- 9 Q. And so wouldn't you have to compare the cost of developing
- 10 that electronic system with the cost of dealing with an order
- 11 manually?
- 12 A. If you were making what type of an analysis?
- 13 Q. To determine which is the least cost, most efficient manner
- 14 of doing it.
- 15 A. I don't think we have that option. My understanding is the
- 16 FCC has ordered that electronic interfaces are the
- 17 forward-looking technology.
- 18 Q. Well, they order that you do them, but have they
- 19 necessarily determined that they're least cost?
- 20 A. Well, at this point in time, much like the central offices
- 21 being located where they are, I would suggest that is not a
- least cost parameter of TELRIC, but the FCC has ordered it and,
- 23 hence, we accept it when we do our TELRIC studies.
- 24 O. Okay. Your --
- 25 A. I think this is another example of that.

- 1 Q. You raise a good point that the FCC hasn't really adopted
- 2 pure TELRIC, it has made certain exceptions to TELRIC, isn't it?
- 3 A. My understanding is the only exceptions it has made are
- 4 those three.
- 5 Q. But there are exceptions?
- 6 A. There are exceptions. Well, the only reason I quibble with
- 7 that is it really formulated what TELRIC is from the TSLRIC
- 8 standpoint, so I could say that they've differed and made
- 9 exceptions to the TSLRIC methodology, but they define TELRIC in
- 10 that way. And since they defined it, I think we kind of have to
- 11 accept it as they defined it. I wouldn't necessarily call it
- 12 exceptions to TELRIC.
- 13 Q. But in a pure economic sense, what you would interpret as
- 14 TELRIC isn't exactly what the FCC has ordered, is it?
- 15 A. It's different than TSLRIC. I think they've made
- 16 alterations to the theoretical TSLRIC model.
- 17 Q. Okay. On Page 50, I believe you recommend that the
- 18 nonrecurring charge be broken down into per-order and per-loop
- 19 charges; is that right?
- 20 A. Generally, yes.
- 21 Q. And you understand Mr. Mette has now done that?
- 22 A. I do understand that.
- 23 Q. Have you had an opportunity to review Cincinnati Bell
- 24 Exhibits 13 and 14?
- 25 A. Can you tell me what those are?

- 1 Q. Those are his exhibits that demonstrate how he broke those
- 2 charges out.
- 3 A. Yes, I have.
- I should -- I should -- not preface, but just add to my
- 5 last answer, that my understanding that he has broken those down
- 6 by service order and loop for the unbundled loop. There are
- 7 facilities that he has not done that for such as HI-CAP
- 8 facilities, DS1, DS3.
- 9 Q. Okay. But you have seen those for loops?
- 10 A. I have seen those for loops.
- 11 Q. Did he divide the per-loop and per-order cost
- 12 appropriately?
- 13 A. If there ever was a loaded question, that is one. Because
- 14 I disagree with the extent to which what's included in the
- 15 original studies are appropriate.
- 16 Q. Well, that's not really what I'm asking you. I'm saying
- 17 just accept what's on there on its face, not saying you agree
- 18 with that, but whether he appropriately assigned those amounts
- 19 to the per loop and the per order.
- 20 A. I just don't feel comfortable saying "yes" or "no" because
- 21 it's kind of like bad info in, bad info out. I think you've got
- 22 bad info in the cost studies, so whether you diced it up this
- 23 way or that way, it still comes out as bad info.
- Q. Well, did he assign anything to per-order charges that you
- 25 believe should be per loop?

- 1 A. Nothing specifically comes to mind.
- 2 Q. Conversely, did he assign anything per loop that you think
- 3 should be per order?
- 4 A. Nothing, again, specifically comes to mind given my earlier
- 5 caveat.
- 6 Q. Okay. I don't believe you make any recommendation as to
- 7 how OSS charges should be recovered, have you?
- 8 A. I make lots of recommendations, I just have to think of
- 9 which one -- if any of them deal with OSS.
- I don't think you could point to one and specifically say
- 11 that's the way OSS should be recovered, no. Though I do make
- 12 recommendations that include cost recovery for OSS systems.
- 13 Q. Now, on Page 55 of your direct testimony, you recommend, I
- 14 believe, interim nonrecurring rates equal to 50 percent of CBT's
- 15 proposal.
- 16 A. Let me familiarize myself with that.
- 17 Yes.
- 18 Q. MCI and CBT already have interim nonrecurring rates, don't
- 19 they?
- 20 A. That's possible.
- 21 Q. Let's go on to the next topic, which is, I believe,
- 22 conditioning charges.
- 23 A. Okay.
- 24 Q. In particular on Page 57, you list some tasks that would be
- done with regard to loop qualification and load coil removal; is

- 1 that right?
- 2 A. Just making sure those recommendations are specific to
- 3 those particular functions, because those look like general
- 4 recommendations with respect to how an electronic interface
- 5 would work.
- 6 Q. I don't believe this deals with electronic interfaces, it's
- 7 talking about steps that would be taken to qualify a loop.
- 8 Page 57.
- 9 A. Perhaps I'm at a different place. Can you read me what it
- 10 says? I apologize.
- 11 Q. Let me show it to you.
- 12 A. Never mind, I'm in the wrong testimony. I apologize.
- 13 Yes, that's what I suggest there.
- 14 Q. Okay. And you don't disagree that these steps would be
- 15 required to perform those activities, do you?
- 16 A. I don't believe I've said either way whether these are --
- 17 if you were going to recover costs associated with this
- 18 activity, whether these are the appropriate costs. I have not
- 19 made that determination as to those activities or the times
- 20 associated with them.
- 21 Q. Well, you haven't raised any points that there's some step
- 22 there that's not required, have you?
- 23 A. Yeah, I did. I said none of them are appropriately
- 24 recovered in a TELRIC.
- 25 Q. That wasn't my question, sir. I asked you whether those

- 1 steps would be required in order to perform those activities.
- 2 A. That's not what you asked me. You asked me whether I made
- 3 a recommendation as to whether those would be required. But
- 4 answering this question, I simply haven't done the analysis
- 5 because I've said they are not appropriately -- appropriate to
- 6 be recovered in a TELRIC cost study.
- 7 The analysis stops there. It doesn't necessarily have to
- 8 go into whether they would be appropriate -- whether those are
- 9 the appropriate steps in an inappropriate application of costs.
- 10 Q. I'm just asking you in provisioning, whether there's any
- 11 step identified on Page 57 that you can tell us today Cincinnati
- 12 Bell would not have to do.
- 13 A. I've not done that analysis.
- 14 Q. Okay. And you would agree with me that for digital
- 15 services to be provided over a loop, that load coils would need
- 16 to be removed?
- 17 A. It's asked very broadly. I think generally you could
- 18 accept that as true. I think there are instances where it might
- 19 not be.
- 20 Q. Okay. And the FCC has included load coil removal as a form
- 21 of loop conditioning, hasn't it?
- 22 A. I think I know specifically where you're talking about in
- 23 the FCC order, but let me just make sure that it considers it
- 24 loop conditioning.
- 25 Q. Well, look at Footnote 826.

- 1 A. Unfortunately I only have the back half of the order with
- 2 me. Do you have that with you?
- 3 Q. I'll show you my copy. Why don't you just read
- 4 Footnote 826.
- 5 A. Okay. "Such loop conditioning may involve removing load
- 6 coils or bridged taps that interface with the transmission of
- 7 digital signals."
- 8 Q. And why don't you read the last sentence of Paragraph 382.
- 9 A. "The requesting carrier would, however, bear the cost of
- 10 compensating the incumbent LEC for such conditioning."
- 11 Q. Now, are you familiar with FCC proposed rulemaking 98-188?
- 12 A. Is that the 706 proceeding?
- 13 Q. Advanced telecommunications services.
- 14 A. Yes, I'm familiar with that.
- 15 Q. Didn't the FCC say twice in that document that, again, the
- 16 requesting carrier would bear the cost of load coil removal?
- 17 A. Perhaps it did. I couldn't speak to that definitively.
- 18 Q. Okay. Let's go on to collocation, which I think is on
- 19 Page 61 of your testimony.
- Now, at the point this testimony was written, I believe you
- 21 had not seen any cost studies for collocation; is that correct?
- 22 A. That's correct.
- 23 Q. And am I correct that the topic of collocation is one that
- 24 was assigned to Dr. Ankum?
- 25 A. Yes.

- 1 Q. And you've not proposed any testimony here with respect to
- 2 collocation?
- 3 A. I haven't.
- 4 Q. So your recommendation in this testimony about charging 50
- 5 percent of the federal tariffed rate is no longer in play, I
- 6 take it?
- 7 A. I don't think it's any longer relevant because I said those
- 8 should be applied until CBT provides a TELRIC study and I think
- 9 they have provided a TELRIC study.
- 10 Q. Okay. Good.
- 11 Why don't we turn to your supplemental testimony, then. On
- 12 Page 5 there's a discussion of trenching again, and you quote
- 13 some dollar figures of 2.45 and 2.72; do you see that?
- 14 A. Yes.
- 15 Q. Has your counsel shared with you the source of those
- 16 amounts?
- 17 A. I read Mr. Mette's cross-examination where I think he
- 18 provided -- where he provided the backup for those.
- 19 Q. Okay. So you understand that those are, in fact, based on
- 20 line items in the J. Daniel contract?
- 21 A. That's my understanding of Mr. Mette's testimony.
- 22 Q. You understand that there are many other potential charges
- 23 in the J. Daniel contract?
- 24 A. The J. Daniel contract contemplates a number of different
- 25 construction activities, yes.

- 1 Q. And these charges are just basic trenching, placing and
- 2 backfilling, right?
- 3 A. I wouldn't refer to them that way simply because -- and I
- 4 discuss in my testimony, the extent to which they are unit
- 5 prices, and the J. Daniel contract specifically speaks to how
- 6 unit prices generally recover more of those miscellaneous costs
- 7 than do firm bid or -- and I forget -- time and materials
- 8 pricing. So I wouldn't refer to them as just those activities
- 9 because they incorporate a whole bunch of other stuff.
- 10 Q. Well, for example, there are other charges for tunneling,
- 11 for example, if you want to tunnel under a driveway?
- 12 A. That's possible. I couldn't point you to one right now.
- 13 Q. And there's different charges for digging up concrete and
- 14 restoring it?
- 15 A. The only reason I hesitate is because much of the
- 16 restoration -- The unit price speaks to not only what I think
- 17 Mr. Mette described as straw and backfill restoration, but it
- 18 generally speaks to restoration in general. I don't know
- 19 whether that includes concrete restoration or not, I don't know
- 20 that specifically.
- 21 Q. Well, there's a lot of line items that might apply in
- 22 different situations; is that fair?
- 23 A. Yes. Like I say, the J. Daniel contract contemplates a
- 24 number of activities over and beyond trenching.
- 25 Q. And the figures here don't reflect any special

- 1 circumstances, do they; it's just digging a trench, placing the
- 2 cable, backfilling and seeding?
- 3 A. That, I don't know. And the reason I don't know is because
- 4 the J. Daniel contract is, I don't know quite the best way to
- 5 describe it, but it differentiates unit prices, which these are,
- 6 from other types of prices in that the unit prices include a lot
- 7 more than do the other pricing schemes.
- 8 Q. Well, unit price is a price per foot, right?
- 9 A. It is.
- 10 Q. And there are other unit prices per foot for other
- 11 activities as well?
- 12 A. That's correct.
- 13 Q. Okay. Now, this issue of trenching, I believe this only
- 14 applies in the buried copper distribution; is that right?
- 15 A. I'm pretty deep in the bowels of the study at this point,
- 16 so this might take me a second.
- 17 No, that's not correct. It's actually -- Well, let me say
- 18 it this way: It is only included for buried cable; but it's
- 19 also included in feeder buried cable.
- 20 Q. Am I correct, though, that the loop makeup sheet uses zero
- 21 feet for buried feeder?
- 22 A. No.
- 23 Q. You understand there's a loop design page that shows the
- 24 number of feet of the different types of cable?
- 25 A. I do.

- 1 Q. Why don't you turn to that. Does that study assume any
- 2 buried feeder?
- 3 A. No, it doesn't.
- 4 Q. So it's got all the feeder either aerial or in conduit,
- 5 doesn't it?
- 6 A. That's very interesting. Yes, it does. That probably
- 7 raises the cost above where they should be, but I don't think I
- 8 caught that. Because buried is the cheapest way to lay copper
- 9 cable or fiber cable, aerial and underground are more expensive.
- 10 Q. But it may not be the most efficient way to build a
- 11 telephone network, would it?
- 12 A. I've never seen a telephone network that didn't have some
- 13 buried feeder.
- 14 Q. Well, whether it has it or not doesn't mean it's forward
- 15 looking, does it?
- 16 A. It doesn't, but likely it's been our experience that the
- 17 manner by which you support, and I'll use that term generally,
- 18 the manner by which you support your cable, whether that be in
- 19 conduit or on telephones or whether you direct bury it,
- 20 generally isn't changed a lot by a forward-looking methodology.
- 21 Q. Let me ask you this: Isn't it true that if you need to
- 22 reinforce feeder cable, it's a lot easier to do that if you've
- 23 already placed conduit than it is to go out and dig trenches for
- 24 the entire feeder?
- 25 A. Well, but you have to understand -- Yes, but you have to

- 1 understand the conduit is far more expensive than simply burying
- 2 it so it's a tradeoff between splicing it and repairing it and
- 3 the original cost of the conduit. That conduit is significantly
- 4 more expensive.
- And you don't get -- Honestly, you don't get that many
- 6 maintenance benefits from having it in conduit versus having it
- 7 buried because they are both protected by the earth. Generally
- 8 the only time it cost -- it would cost you more to deal with
- 9 buried is if you actually have to go out and dig up a point
- 10 where it's been cut. Most spliced points are pulled above
- 11 ground in a pedestal, even in buried.
- 12 Q. Getting back to the original point, the -- am I correct,
- 13 then, that in Cincinnati Bell's cost study, that the only place
- 14 where trenching has an impact is in buried copper distribution
- 15 plant?
- 16 A. That's true. I wish I would have known that earlier.
- 17 Q. Okay.
- 18 A.. I think we would have made some different recommendations.
- 19 Q. Doesn't apply to fiber and doesn't apply to feeder; is that
- 20 right?
- 21 A. Given what I know now about feeder, that's true, it does
- 22 not.
- 23 Q. Now, you have no idea, do you, whether or not Cincinnati
- 24 Bell would place more than one cable in a distribution trench?
- 25 A. I don't know specifically the extent to which CBT does.

- 1 Every other telephone company I've ever dealt with both in terms
- of cost studies and as clients have, when it makes sense, placed
- 3 more than one cable in a -- in either conduit or in a buried
- 4 application.
- 5 Q. I'm talking about distribution now.
- 6 A. Okay. Two different telephone cables in a given piece of
- 7 distribution?
- 8 O. Yes.
- 9 A. That's not as -- that's not as prevalent, but it's still
- 10 done.
- 11 Q. What clients do you have that place buried distribution?
- 12 A. Well, I'm afraid our client list is somewhat confidential.
- 13 I don't mind giving you that information, but I wouldn't want it
- 14 on the public record.
- 15 Q. Do you represent local exchange companies?
- 16 A. Yes.
- 17 Q. Now, you cite in Footnote 4 on -- appears on Page 7 in my
- 18 copy, you cite to pages out of the J. Daniel contract; is that
- 19 right?
- 20 A. Let me catch up with you. Page 4?
- 21 Q. Uh-huh. We're in the rebuttal testimony -- or,
- 22 supplemental testimony.
- THE EXAMINER: Page 4 or Page 7?
- MR. HART: I'm sorry, it's Footnote 4 on Page 7. I
- 25 apologize.

- 1 THE WITNESS: Okay.
- 2 Yes.
- 3 BY MR. HART:
- 4 Q. Okay. And you specifically are citing to Pages 18 and 19
- 5 of that contract?
- 6 A. Yes, I am.
- 7 Q. Okay. And this portion of the contract deals with the
- 8 placement of conduit; is that right?
- 9 A. Well, Page 18 deals with more than conduit. At the very
- 10 bottom of Page 18 it begins the placing conduit in plastic
- 11 multi-duct section, but Pages 18 and 19 deal with conduit and
- 12 other types of placement.
- 13 Q. But the portion you're citing to is entitled placing
- 14 conduit in plastic multi-duct, isn't it?
- 15 A. Believe it or not, I'm actually having trouble finding
- 16 where I had the footnote for in the actual text.
- 17 Q. It's actually on the preceding page, one of those nice --
- 18 A. Okay. That's the problem with Word.
- 19 No, I don't think it is specific to Page 19. I do quote
- 20 some material at Page 7 which I believe is from, perhaps, Page
- 21 19, but I've got that footnote specifically placed to generally
- 22 support what I'm saying, and I think it's the entire document,
- 23 and specifically those two pages are what I pointed to that
- 24 support that.
- 25 Q. Well, your footnote is to a sentence that talks about

- 1 sharing trenches with other utilities, right?
- 2 A. That's correct.
- 3 Q. And the pages of the agreement that you include talk about
- 4 placing conduit, don't they?
- 5 A. Well, no, they talk about other things as well. "For
- 6 example...."
- 7 O. Manholes?
- 8 A. I'm sorry, "For example" -- the question -- the sentence
- 9 that Footnote 4 deals with is very long. It says, "For example,
- 10 the per-foot charge including backfilling and 'finish grade'..."
- 11 Q. That's not that same sentence, is it?
- MS. SANDERS: Your Honor, let him finish his answer.
- 13 I object.
- 14 THE EXAMINER: Finish.
- THE WITNESS: You're correct, that is not the
- 16 sentence. The sentence before that generally deals with that,
- 17 perhaps it was a grammatical error, but that footnote is really
- 18 meant to support what I'm saying in general in that paragraph.
- 19 That deals with far more than just pages -- or, just the part of
- 20 Page 19 that you're talking about that deals with placing
- 21 conduit in plastic multi-duct.
- 22 BY MR. HART:
- 23 Q. Well, specifically your sentence refers to specifications,
- 24 you cite a page, and that page has specifications; is that true?
- 25 A. Well, I cite two pages. One page that you're focusing on

- 1 is in the multi-duct section, the placing conduit. The other
- 2 page, and perhaps I did my footnote incorrectly, but I was using
- 3 that more generally to talk about the extent to which this
- 4 contract in general talks about the way in which things are
- 5 restored as well as placed.
- 6 Q. And Page 19 is talking about conduit as well?
- 7 A. Well, Page 19 is, Page 18 is not --
- 8 Q. Page 18 --
- 9 A. -- specifically.
- 10 Q. Page 18 is about manholes, which has nothing to do with
- 11 trenching, does it?
- 12 A. That's what I'm suggesting, is that footnote was to be more
- 13 specific to the contract. Perhaps I could have been more clear
- into using that footnote to specifically identify specific
- 15 language, but I used it generally to identify the contract.
- 16 Q. And the placing of conduit doesn't have anything to do with
- 17 buried distribution cable, does it?
- 18 A. Well, it doesn't have anything to do with is a bit strong.
- 19 I would say no, it's not -- it's not specific to my
- 20 recommendation.
- 21 Q. When you place conduit, that's underground, that's not
- 22 buried?
- 23 A. Well, you have to bury the conduit, is the reason I made
- 24 that distinction.
- 25 Q. But the cost study that Cincinnati Bell has put together

- does not charge trenching where there's conduit, does it?
- 2 A. Well, I'd have to look to make sure that's specifically
- 3 true, but I doubt that they eat the cost associated with
- 4 trenching for the conduit. I'm certain it's recovered in there
- 5 somewhere, I'm just not as familiar. Can I take a second to
- 6 find out where that actually is included?
- 7 Q. It's in the conduit factor, isn't it?
- 8 A. Let's take a look. I don't think -- I don't think we can
- 9 be exactly sure because included in -- and I've got pulled up
- 10 right now underground 5C distribution cable costs, there are
- 11 placing hours associated with that piece of cable.
- 12 I don't know whether those placing hours deal with just
- 13 pulling, in this case, the fiber through the conduit, or what
- 14 those -- whether those also deal with recovering cost associated
- 15 with placing the conduit itself.
- 16 Q. Well, in the buried cable investment there's a specific
- 17 line item for trenching, isn't there?
- 18 A. There is.
- 19 Q. And there's no such line item in underground, is there?
- 20 A. There is no such line item in underground, though they do
- 21 both share a placing cost factor.
- 22 Q. And you have no evidence that that placing includes
- 23 trenching, do you?
- 24 A. I've not suggested that it does, and I have no evidence to
- 25 support that it does or it doesn't, I'm simply saying that it's

- 1 not clear.
- 2 Q. You would agree also with me that the -- the cost of the
- 3 copper cable, itself, is a relatively small part of the loop
- 4 investment?
- 5 A. I prefer not to characterize it that way, but I think I
- 6 give the actual percentage in my testimony. I think I
- 7 suggest -- Think of how I did the calculation. If you took the
- 8 cost of the copper cable and let's say it was a dollar per foot,
- 9 when you're done adding the rest of the stuff, it would be 6.50
- 10 a foot, or 650 percent. Would I consider that to be small,
- 11 relatively small? Likely.
- 12 Q. I'm looking for a quote from here. In your direct
- 13 testimony on Page 41 you have a footnote there; see that?
- 14 A. Yes.
- 15 Q. And that's where you indicate that the cost of the cable is
- 16 six-and-a-half times the actual material?
- 17 A. That's right. That's where I make that calculation.
- 18 Q. Okay. I'd like to go to the DA listings testimony, and I
- 19 guess your calculations appear in Exhibit 7; is that right?
- 20 A. I think that's correct, yes.
- 21 Q. Now, you indicated this morning when you started out that
- 22 the bottom line price which shows up as .0067 here is going to
- 23 be increased to, I think .00758?
- 24 A. Well, that was the TELRIC. The rate was going to be .0088.
- Q. But the comparable number is the .0067 would convert into

- 1 the .00758?
- 2 A. Yes. The only reason I made that distinction is because
- 3 you said the price and I want to make sure you understood that
- 4 was the cost.
- 5 Q. I thought I said the bottom line figure; but nevertheless,
- 6 what changes in the equation leading up to that number to result
- 7 with that answer?
- 8 A. Well, it was the adjustments that we talked about in my
- 9 deposition, which was I inadvertently -- best way to say this --
- 10 when I recalculated CBT's directory assistance costs, there are
- 11 a pot of dollars that are determined and then allocated in a
- 12 certain fashion. The way Mr. Mette did the -- And that pot of
- 13 dollars deals with the expenses of that operation for a period
- 14 of time, for a given year.
- What Mr. Mette did is he did that operation for four years
- and assumed a growth in the number of employees that would be
- 17 needed to accommodate those services over those four years, such
- 18 that to provision the service in year 4 was more expensive to
- 19 provision in year 1. Then what he did was took a present value
- of all those costs back to a current day -- back to the present
- value, and then he allocated those -- this is generally -- he
- 22 allocated those in a fashion similar to the way I've done here
- 23 to arrive at a per-listing cost.
- I inadvertently, whenever I recalculated Mr. Mette's
- 25 studies, I didn't mean to take out his analysis with respect to

- 1 the four-year period, but I made a mistake and I simply used
- 2 that pot of dollars from the first year in my original
- 3 calculation and then I did my allocation.
- 4 When I revised my calculations I went back in, did the four
- 5 years, present valued them back just like Mr. Mette did and then
- 6 reallocated them. I didn't -- It was not my intention to assume
- 7 one given year and I was afraid that my calculation may look
- 8 like I was, so I made the change.
- 9 Q. Well, the simple answer to my question is that one of these
- 10 numbers changed. Can you just tell me what that numbers is and
- 11 what it should be to reveal the result you came up with?
- 12 A. I'm sorry. Yeah. It's in Exhibit 7. In Exhibit 7, the
- 13 top line that's entitled "Total Nonclosing Yearly Production
- 14 Expenses", and that 814,134,444 that have I there was for
- 15 year 1; after I did the present value analysis that Mr. Mette
- 16 did, that number changes to 929,883.
- 17 Q. Thank you.
- 18 A. And then everything else flows from that.
- 19 Q. Now, if we could go back a couple exhibits, I believe the
- 20 Exhibit 5 to your -- I'm sorry, 4 to your supplemental testimony
- 21 has a flow chart.
- 22 A. Yes.
- 23 Q. Now, the expenses that you've just identified that were
- 24 changing to the 929,883, would you tell me where those originate
- 25 in this process diagram?

- 1 A. Yes. My understanding is, is that you see the cylinder
- 2 "OS/Order System and Database", and then there's an arrow that
- 3 goes to "Directory Service Order Activity". My understanding is
- 4 that all costs on the directory service order activity,
- 5 including those costs of the directory service order activity,
- 6 are included in CBT's DA listing cost study.
- 7 Q. Okay. So a DA listing would come through, flow from that
- 8 into the LSS?
- 9 A. Yes.
- 10 Q. And certain directory listings fall out because of
- 11 something wrong with them?
- 12 A. Yes, I believe that happens.
- 13 Q. And that goes into the box called "Rejects"?
- 14 A. Right, the box off of LSS directories that's rejects, not
- 15 OSS rejects.
- 16 Q. And then somebody who works for Cincinnati Bell has to deal
- 17 with that listing to try to correct it; is that right?
- 18 A. That's correct.
- 19 Q. And that's the directory production unit?
- 20 A. That is one of their functions, is my understanding.
- 21 Q. Okay. And the cost of dealing with those rejects is a part
- of this overall cost we're talking about, isn't it?
- 23 A. That's what CBT has included in its studies, yes.
- Q. Okay. And the LSS then, am I correct, that's used to
- 25 produce both the directory assistance database and a published

- 1 directory?
- 2 A. Yes. My -- The way I think of that, rightly or wrongly, is
- 3 that that is where the most current directory listings data
- 4 resides. And whether you go to do your white pages directory or
- 5 whether you go to repopulate a DA database for electronic,
- 6 whatever you do, you pull it from that database.
- 7 Q. So both directory assistance and published directories rely
- 8 upon the LSS?
- 9 A. That's my understanding.
- 10 Q. And before a listing makes it into LSS it has come through
- 11 the order process and it has passed whatever screening is
- 12 necessary to correct rejects?
- 13 A. Well, as you can see from the diagram there, the only
- 14 reason I would disagree with that is it appears from the diagram
- 15 to me that it first goes to the LSS directory production system,
- 16 which then recognizes whether something needs to be rejected.
- 17 If it does, it rejects it, it goes to the directory production
- 18 unit and then is returned to the database as accurate
- 19 information. So it actually hits that database first.
- 20 Q. But before it's retained there in the database that feeds
- 21 directory assistance, it passes through the reject and
- 22 correction system, right?
- 23 A. My understanding is only if there is an error or a problem
- 24 with the data.
- 25 Q. Which happens, doesn't it?

- 1 A. I think we have said it does, yes.
- 2 Q. Okay. And then am I correct that there are a couple of
- 3 computer jobs that are run to convert the LSS database into the
- 4 DA database?
- 5 A. That's my understanding, yes.
- 6 Q. And you've included the costs of those jobs in your study,
- 7 right?
- 8 A. Yes, I have.
- 9 Q. And that then yields what's called an F20 output?
- 10 A. That's my understanding, and as I've suggested in my
- 11 testimony, those jobs, the costs associated with those jobs, are
- 12 those jobs for an entire year.
- 13 Q. And the F20 output is what MCI is looking to purchase?
- 14 A. That's my understanding, yes.
- 15 Q. And this happens every day, doesn't it?
- 16 A. What happens every day?
- 17 Q. Listings are generated?
- 18 A. Yes, listings are generated every day.
- 19 Q. And it's some small percentage of the overall database is
- 20 generated every day?
- 21 A. That's not the way I'd look at it. I think the way I'd
- 22 look at it is the database is maintained, and that includes
- 23 incorporating new listings as well as the rejects we talked
- 24 about earlier of correcting inaccurate information.
- 25 Q. Okay. Every new listing has to go through that screening

- before it makes it to an F20 output?
- 2 A. Well, I guess the only reason I hesitate with that is that
- 3 my understanding from this flow chart is that -- Well, let's
- 4 just take an example. Let's say I move into Cincinnati tomorrow
- 5 and order service. I call up the CBT customer representative
- and say, "Mike Starkey wants to order service", and I'm assigned
- 7 a number and I give them my address, or they already have it.
- 8 That's a new listing.
- 9 The OS order system generates that listing from that
- 10 customer representative's time and sends -- one place it sends
- 11 it to is the directory service order activity section on this
- 12 diagram. That is then put into the LSS directory production
- 13 system and database.
- 14 If there is an error with that, and it is somehow rejected
- by the system, then it's rejected, but it first goes to that LSS
- 16 directory production system.
- 17 Q. But before a listing shows up on the daily F20 output, it
- 18 has passed through this system and been accepted?
- 19 A. Yes. The only reason I differentiated is because it may
- 20 not have gone through that reject system; if the information is
- 21 accurate, it has no reason to go through this.
- 22 Q. Some percentage do go through the rejects?
- 23 A. Again, that's true.
- 24 Q. And what we're doing here is we're pricing the total
- 25 element, which would include both the rejects and the ones that

- pass through, wouldn't it?
- 2 A. I would agree with that.
- 3 Q. Now, the daily F20 feed, would you agree with me that only
- 4 updates to the database?
- 5 A. The daily F20 feed?
- 6 Q. Yes.
- 7 A. The daily F20 feed is only updates.
- 8 Q. So there's a large database that contains all of the
- 9 listings, and then every day there's a new feed of updates to
- 10 that?
- 11 A. That's my understanding.
- 12 Q. And MCI is looking to purchase not only the daily updates,
- 13 but they want the entire database, too?
- 14 A. In that same F20 format, yes.
- 15 Q. And every one of those listings has been through the same
- 16 process?
- 17 A. Well, when you say "process", I can't agree with that, no,
- 18 not every one of those listings has been through the same
- 19 process. Not every one of those listings would have been
- 20 rejected. Many of them, and I think the vast majority, from
- 21 what I've been able to tell from this information, simply go to
- 22 the LSS directory production system and database and reside
- 23 there.
- 24 Q. But when I say "the same process", I mean they either pass
- 25 through without any problems or they were rejected and were

- 1 corrected?
- 2 A. I think those are the two options, yes.
- 3 Q. Okay. And there's really no distinction between the
- 4 listings that are in the total database and the listings that
- 5 flow through every day, is there?
- 6 A. Yes, I think there is.
- 7 Q. How are they different?
- 8 A. A listing that is in the database has already been
- 9 verified, and it's verified when it first comes in, isn't
- 10 queried for whether it should be rejected for accuracy or not.
- 11 Q. Because that's already happened?
- 12 A. It's already happened, so they are different.
- 13 Q. Well, if we were to start from scratch, we start a brand
- 14 new telephone company and we don't have a listings database,
- 15 would you agree with me that every listing would essentially be
- 16 an update?
- 17 A. We're quibbling over terminology. I don't know what the
- 18 significance of calling it an update or anything else is. It
- 19 would go through this process we have just talked about. That's
- 20 true whether you're just starting a telephone company or whether
- 21 you've got an existing telephone company.
- 22 Q. And on a total element basis, the cost of those listings
- 23 that are in the database is the same as the cost of the listings
- 24 that are in the updates, isn't it?
- 25 A. No.

- 1 Q. Tell me why they are different.
- 2 A. Well, as I've discussed in my testimony, the database is
- 3 generally -- well, not generally, but it is, it's generated from
- 4 the OS order system and database, so let's think of it this way,
- 5 let's think of the fact that we have got a database that is
- 6 generated from this OS ordering system and database that was
- 7 actually generated by those customer service representatives
- 8 that I talked to on the phone when I ordered service, of which
- 9 those costs were recovered through my nonrecurring charges
- 10 whenever I picked up the phone and made a retail service order.
- 11 So that listing goes to the LSS directory production system
- 12 database and it resides there.
- Now, we have got this database. Now, on a daily basis
- 14 we're going to be updating that information. We're going to be
- 15 taking new -- Well, let's take a new listings example. A new
- 16 listing comes into the database, MCI doesn't have that in its
- 17 database because it ordered the database yesterday, so it needs
- 18 to get that information via update. Those are two very
- 19 different processes, they are two very different things, and
- 20 they have two very different associative costs.
- 21 Q. Tell me why the costs are different.
- 22 A. Because a different process is done. Processes generate
- 23 costs.
- 24 Q. I thought you said they had all been through the process.
- 25 A. No, I didn't say that. What I said was if you were

- 1 including the process as the rejection system, I'm not saying
- 2 all of them go through that, we agree some small percentage do,
- 3 so no, I'm not suggesting they all go through the process, if
- 4 that's how you're defining it.
- 5 Q. Well, tell me what's different about the process that's
- 6 been experienced by a listing that's in the final database
- 7 versus the process that the daily updates go through.
- 8 A. Well, the difference rests in -- And this is the way I look
- 9 at it. MCI comes in, gets the database, okay? Now, a number
- 10 that is in the current MCI database which hasn't changed, which
- 11 we have already agreed is the vast majority, doesn't go through
- 12 this process, it's already there, it's already there, only the
- 13 numbers that change go through this process, so the costs
- 14 associated with those changes are the costs that are incremental
- 15 to a given update.
- 16 Q. And each one of the listings in the final database has gone
- 17 through that process at some point in time?
- 18 A. Well, again, that's the same question that I've said "not
- 19 necessarily", and again, I think it comes down to your
- 20 definition of "process", but I don't think we're going to agree
- 21 on that; no is my answer.
- 22 Q. So I understand your proposal is that the cost of the
- 23 initial load of data ought to be limited to those two computer
- 24 programs that convert the LSS into a DA database; is that right?
- 25 A. That is my recommendation.

- 1 Q. So you're ignoring all of the costs of the LSS, the cost of
- 2 correcting any reject that had to pass through the reject
- 3 system, and only charging that one computer program for the vast
- 4 majority of listings?
- 5 A. I wouldn't say it that way. What I would say is there is a
- 6 database that exists. We would like a copy of it. What are the
- 7 costs associated with providing us a copy of that; that is, the
- 8 download of the DA database.
- 9 Now, there's also another element, which is we would like
- 10 to have that database up to date on a daily basis. We're
- 11 willing to pay for all costs associated with updating that, and
- 12 that's what is included in my analysis.
- 13 Q. Now, in a TELRIC long-run analysis, that database doesn't
- 14 exist, does it?
- 15 A. Well, yes, it does.
- 16 Q. I thought long-run analysis said everything is avoidable
- 17 when you start from a clean slate?
- 18 A. It does say that.
- 19 Q. So we start with listing number one, don't we?
- 20 A. Well, perhaps, I mean, what I'm suggesting is that there is
- 21 a system in place, this OS/Order system. Let's think of it this
- 22 way. All right. You want -- if we want to start at the
- 23 ground-level TELRIC analysis, we know where our customers are,
- 24 we know where our central offices are, we have provisioned
- 25 services to those customers. Those customers have all ordered

- 1 service.
- 2 Q. And the cost of building this network has to include all of
- 3 those orders, doesn't it?
- 4 A. And it does. Those customers have paid nonrecurring
- 5 charges for ordering that service.
- 6 O. Not in TELRIC.
- 7 A. Including those nonrecurring charges, they have paid for
- 8 this OS/Order system and they have paid for the representatives
- 9 that put data into it. So after we have done that process, as a
- 10 result of that process, we have a database of all those
- 11 customers' listings. That's what resides in the LSS directory
- 12 production system and database.
- 13 Q. You've included in your testimony as an Exhibit No. 5
- 14 something produced by Southwestern Bell.
- 15 A. That's correct.
- 16 Q. And this doesn't tell us how many listings they have, does
- 17 it?
- 18 A. No, it doesn't.
- 19 Q. It doesn't tell us how many people they have or what the
- 20 expenses of those people are, does it?
- 21 A. Well, not specifically those numbers. It tells us what the
- 22 aggregate of all of those things are, and, in fact, it tells
- 23 their incremental cost.
- Q. And Southwestern Bell is a huge company, isn't it?
- 25 A. They are a large company; I would agree.

- 1 Q. And I take it you've been participating in their efforts to
- 2 merge with Ameritech here?
- 3 A. Well, no, I haven't. To a large extent I've been keeping
- 4 up with it because we were active in that case in Illinois.
- 5 Q. Okay. Southwestern Bell probably has 25 million customers,
- 6 doesn't it?
- 7 A. I'd only be guessing if I guessed that. I don't know.
- 8 Q. So this study where we get the results isn't real helpful
- 9 to us in determining how they got there, is it?
- 10 A. Actually, I think it is, and I think what this study shows
- 11 us is that -- Well, let me say a couple of things. One, I think
- 12 what the Southwestern Bell information shows is a couple of
- 13 things.
- One, we're talking about orders of magnitude of 16,000
- 15 percent between what Southwestern Bell -- I think that's the
- 16 right number, of what Southwestern Bell has determined their
- 17 costs are for this service as compared to what CBT is proposing
- 18 in this case.
- Now, we have got that as a factor, we're just not in the
- 20 realm -- my opinion is we're not even in the realm of reality at
- 21 18 cents, we're dealing with costs that are so disparate that we
- 22 can't even really compare the two.
- The other thing that this study shows us is that this is an
- 24 arbitrated result with a Commission decision, which is that
- 25 these are the costs.

- 1 The only reason I provide this one as opposed to others is
- 2 that this is public information. I've more recently received
- 3 other public information which support -- this is from NYNEX.
- 4 This is the level of DA directory costs which are being provided
- 5 by Commissions pursuant to decisions across the country.
- 6 O. And those decisions were based on the cost information of
- 7 those specific companies, wasn't it?
- 8 A. That's true, the long-run incremental cost study, and in
- 9 New York I believe they used the TELRIC standard.
- 10 Q. And we haven't been benefited here with a calculation
- 11 similar to your Exhibit No. 7 or like Mr. Mette's DA study which
- 12 shows how that .0066 number was derived, have we?
- 13 A. No, we haven't.
- 14 Q. It would be pretty useful to know that, wouldn't it?
- 15 A. I would like to know that; unfortunately much like CBT they
- 16 consider that to be proprietary information.
- 17 Q. Now, in SBC's study, the initial load costs a lot more than
- 18 the update, doesn't it?
- 19 A. When you say "a lot more", we're talking about the
- 20 difference between less than a penny, but it does cost more.
- 21 Q. Well, it's more than twice as much; in fact, it's three
- 22 times as much or more for electronic, isn't it?
- 23 A. Yes, it is.
- 24 Q. So that says there's something out of line with your study
- 25 that shows that the initial load is cheaper, doesn't it?

- 1 A. I don't know that it necessarily does.
- Q. Well, are we supposed to accept SBC in all respects, or
- 3 just in respect of compare its cost to Cincinnati Bell?
- 4 A. We're supposed to accept it in all respects, and what I've
- 5 suggested in my testimony is not that we should accept the
- 6 Southwestern Bell rates, my recommendation is not take these
- 7 rates and apply them to CBT.
- 8 My recommendation is this is relevant information to
- 9 understand the magnitude of the rates that CBT has proposed in
- 10 this case at 16,000 percent of what Southwestern Bell has
- 11 proposed, and again, now I understand 16,000 percent of what
- 12 Bell Atlantic/NYNEX is proposing.
- 13 Q. Well, should we also take into account that the initial
- 14 load ought to be a multiple larger than the update?
- 15 A. I'm certain that if the Commission finds that to be
- 16 relevant information, I think that they should take that into
- 17 consideration. I don't know that I necessarily would draw that
- 18 conclusion from this.
- 19 Q. Did Southwestern Bell exclude any of the comparable expense
- 20 to LSS and reject correction in their initial loads?
- 21 A. I don't know. I don't know that their system is set up
- 22 exactly like CBT's is, all I know is this is a forward-looking,
- 23 long-run incremental cost associated with an efficient way to
- 24 run a directory system.
- 25 O. For SBC?

- 1 A. We have argued in my deposition about the fact that
- 2 long-run incremental cost varies very little between carriers.
- 3 Q. Well, if 10 people could run SBC's DA processing, it would
- 4 also take 10 people to run Cincinnati Bell's, wouldn't the
- 5 magnitude of listings be a major factor?
- 6 A. Well, there are a number of assumptions in there that I
- 7 would point out before I answer it, and those are that the
- 8 number of people required to update a directory listing database
- 9 isn't variable with respect to the number of DA listings that
- 10 are in the database.
- I would suggest that Mr. Mette's study, and I think
- 12 appropriately so, suggests that that isn't the case, that it is
- incremental, the more directory listings you get, the more
- 14 people you need, and that's why I made the correction to my
- 15 testimony to say that Mr. Mette's point is a valid one, which is
- if you have more folks coming in to change their numbers, you
- 17 probably need more folks to update that number.
- 18 Q. And if you saw SBC's listings and number of employees, we
- 19 could test your assumption?
- 20 A. I don't know if we could test it given that information,
- 21 but it would be useful information.
- 22 Q. Now, another thing you've done in your calculation is
- assume that only 10 percent of the updating costs net of
- 24 directory closing are applicable to DA database, correct?
- 25 A. That's correct.

- 1 Q. And that's a totally arbitrary number, isn't it?
- 2 A. No.
- 3 Q. Will you show me how you calculated it?
- 4 A. In my testimony, I describe the extent to which I
- 5 reviewed -- we asked CBT for -- Let me step back.
- 6 There are particular expenses included in the CBT DA
- 7 directory study for particular categories of current employees
- 8 that do this type of work. One-hundred percent of their time
- 9 and expenses, including down to the fact that they sit in a
- 10 desk, and that desk is incremental to DA, are included in the DA
- 11 cost study.
- Now, what I did was, is I asked CBT for the job description
- 13 for those folks, and what it is that they do on a daily basis,
- 14 and CBT provided that information to me, and I describe this in
- 15 my testimony, the vast majority of the jobs that are included on
- 16 those position profiles deal not with maintaining the DA
- database, most of them deal not with DA at all, most of them
- deal with directory and directory publishing; and, hence, I
- 19 reduced that to a ten percent level.
- There was not a mathematical calculation of that, you're
- 21 correct, it was simply my review of those positions; nor was
- 22 there a mathematical calculation of Mr. Mette's 50 percent, by
- 23 the way, it was simply an estimate given the fact of what those
- 24 people do on a daily basis assigned to either directory
- 25 production or DA listings maintenance.

- 1 Q. Well, before we decide what's DA and what's directory
- 2 production, would you agree that Mr. Mette subtracted out what's
- 3 called directory closing costs?
- 4 A. He did.
- 5 Q. And do you have any way of telling me how much of the time
- on those job descriptions is attributable to directory closing
- 7 costs?
- 8 A. No. We tried to get a sense of that through Mr. Mette's
- 9 cross-examination, and there were a number of places where
- 10 Mr. Mette didn't know whether a particular function was closing
- 11 or not. I don't have any more information than Mr. Mette had so
- 12 I can't make that calculation.
- 13 Q. Well, you know, don't you, that Mr. Mette consulted with
- 14 the managers of the DA production system and they had records of
- what was closing cost time, didn't they?
- 16 A. Well, and I've not quibbled with the amount of money
- 17 Mr. Mette has taken out for closing costs, I've not changed that
- 18 number at all.
- 19 Q. And you haven't taken that into account when you looked at
- 20 the job descriptions in determining how much of their time was
- 21 closing costs and how much was generic to the database, have
- 22 you?
- 23 A. Yes, I did.
- 24 Q. How much did you take out for closing costs?
- 25 A. Well, again, we have to refer to the original study wherein

- 1 there isn't a -- Well, I took out exactly as much as Mr. Mette
- 2 took out. I took out 34.7 percent.
- 3 Q. And which of the tasks in the job descriptions did you
- 4 attribute to directory closings?
- 5 A. There are a number that are specific and give us that
- 6 information. I'd have to turn there to get them. And again,
- 7 this is something we tried to understand with respect to
- 8 Mr. Mette and his cross-examination, and we didn't get a lot of
- 9 relevant information, although there was some relevant
- 10 information.
- 11 For example, manages fire, police, Bell and Bell executives
- 12 listings, pending order and missed due date. Directory closing
- is a process wherein you take a given amount of data in a DA --
- 14 Let's say it's a database, in the DA -- not DA database, but a
- 15 listings database, and you determine a cut-off point for which
- 16 that data -- that data will be updated. You then do particular
- 17 activities associated with attributing that data at that point
- in time and disseminating it to a publisher and a number of
- 19 other folks that are necessary to actually produce a white pages
- 20 directory.
- Managing a particular set of numbers over a period of time
- 22 is very unlikely to be included in those closing costs
- 23 associated with a point of time production of a given directory.
- 24 There are a number of activities in here that deal on that very
- 25 same basis with the idea that these clerks actually manage this

- on a year long basis, not simply a closing cost point in time.
- 2 Q. How much time was spent on that task you identified?
- 3 A. That information is not provided, nor is it my
- 4 understanding that it was provided to Mr. Mette.
- 5 Q. You think the manager of the DA area would know how their
- 6 people spend their time a little more than you would?
- 7 A. I think that is possible, and that's why I've not changed
- 8 the number that they provided to Mr. Mette, which was 37.5
- 9 percent.
- 10 Q. You think they would better know how their time was divided
- 11 between DA and directory?
- 12 A. Well, my understanding is they did not provide that
- 13 information. Mr. Mette's testimony suggests that he attributed
- 14 50 percent to each because they benefit both systems.
- 15 Q. And LSS does benefit both systems, doesn't it?
- 16 A. Well, that's a different point than was just made. I think
- it does benefit both systems, that's a different question than
- 18 it is incremental, are the costs incremental to a given system,
- 19 which is the analysis that is appropriate here.
- 20 Q. Well, the DA database flows directly out of the LSS
- 21 database, doesn't it?
- 22 THE WITNESS: Can I hear that again.
- 23 (Question read back as requested.)
- 24 THE WITNESS: It's a direct line on the flow chart.
- 25 It does flow out of it, yes.

- 1 BY MR. HART:
- 2 Q. So if there wasn't a LSS there wouldn't be a DA database on
- 3 this flow chart?
- 4 A. Perhaps that's true, but its irrelevant to my analysis.
- 5 Q. So you can't provide me with any kind of an analysis -- or,
- 6 what I really mean is a calculation how you came up with 10
- 7 percent?
- 8 A. No, no more than Mr. Mette did with his 50 percent.
- 9 Q. Just your best guess?
- 10 A. I'm just trying to understand the extent to which I could
- 11 have been more specific than Mr. Mette was because I obtained
- 12 all my information from Mr. Mette.
- 13 Q. Now, you also make some different demand assumptions, don't
- 14 you?
- 15 A. Yes, I do.
- 16 Q. And you assume that five carriers would be using the
- 17 database?
- 18 A. That's correct.
- 19 Q. You can't identify who any of those carriers are, can you?
- 20 A. No, nor do I think that's relevant. I mean, I base my -- I
- 21 base my recommendation on five carriers based upon my
- 22 discussions with MCI directory assistance personnel, and what
- 23 they have seen in other areas that have a more developed and
- 24 mature local competition market, and in those markets they
- 25 suggested five is a very reasonable number if not a highly,

- 1 highly conservative one.
- 2 Q. Do you know if any carrier other than MCI that has asked to
- 3 get Cincinnati Bell's database?
- 4 A. Yes.
- 5 0. Who?
- 6 A. I don't know the name because CBT didn't provide it. My
- 7 understanding was, though, that they had been approached by
- 8 another carrier requesting that information, that's all I know.
- 9 Q. Where do you get that information?
- 10 A. It came on a data request response.
- 11 Q. Is this the third carrier in Mr. Mette's demand you're
- 12 referring to?
- 13 A. No, my understanding was from that data request response,
- 14 and it would take me a while but I could find it, that they had
- 15 been approached by another carrier requesting access to that
- database but they had not yet completed an agreement. I think
- 17 we asked Mr. Mette about that in his examination and I don't
- 18 believe he had any more information on whether they had
- 19 contracted or had not at that point.
- 20 Q. I'd like you to try to find that data request over lunch if
- 21 you could.
- 22 A. I will.
- 23 Q. Do you know of anybody else besides that one?
- 24 A. That has done what?
- 25 Q. That has requested the database.

- 1 A. From CBT?
- 2 Q. Yeah.
- 3 A. I don't. My data request response asked for anybody who
- 4 had approached CBT and that was the only one they provided.
- 5 Q. So of the parties to this case, MCI is the only one?
- 6 A. That has approached MCI?
- 7 Q. Has approached CBT.
- 8 A. I'm sorry. As to parties to this case that might very well
- 9 be true, but I don't know why we would limit it to that in terms
- of unitizing our demand, whether they were involved in this case
- 11 or not would be irrelevant.
- 12 Q. Your cost study assumes there's 15 carriers, doesn't it?
- 13 A. No, it doesn't.
- 14 Q. Well, tell me where you got the demand number for the
- 15 number of updates, which is Line 10 of your Exhibit No. 7.
- 16 A. Those are taken from Mr. Mette's DA study.
- 17 Q. That references Tab B, Page 2; is that right?
- 18 A. It does reference that, yes.
- 19 Q. Could you find that number on his study Tab B, Page 2 for
- 20 me?
- 21 A. I'm there.
- 22 Q. How is that calculated?
- 23 A. Perhaps I've -- well, okay. That's calculated by the
- 24 number of updates times the three customers.
- 25 Q. So it already has embedded with that an assumption of three

- 1 customers, right?
- 2 A. Well, I don't think that's necessarily true because if we
- 3 go back to where that number generates, which is back to Exhibit
- 4 2, Tab A, that's actually -- well, yeah -- that is actually
- 5 where that number generates is the levelized demand of total
- 6 updates in a given year, Tab A -- I'm sorry, Exhibit 2, Tab A,
- 7 A3.
- 8 Q. Well, in fact, isn't that the number of annual updates
- 9 projected over time?
- 10 A. No.
- 11 Q. Where are you again, what page are you on?
- 12 A. Exhibit 2, Tab A, Page 3, Column A, Line 3.
- 13 Q. And that's entitled levelized demand?
- 14 A. It is, but you see in the levelizing columns B, C, D, E and
- 15 F that there's no levelization that's taken place.
- 16 Q. Look at Tab A, Page 2.
- 17 A. Okay.
- 18 Q. Would you agree with me that that shows a levelized demand
- 19 for listings?
- 20 A. Yes, that's where the levelization is done.
- 21 Q. And that's where the 2.8 comes from?
- 22 A. Where that's where the 2,828,823 comes from, yes.
- 23 Q. Now, your source is Tab B, Page 2, right?
- 24 A. Well, as I read through this, it looks like I've used the
- 25 wrong source. The number at Exhibit 2, Tab A is actually the

- 1 levelized demand and it's a larger number. So in using the
- 2 smaller number, I've overestimated the cost.
- 3 Q. And that's still three customers to get to that number,
- 4 isn't it?
- 5 A. Well, I don't think that's necessarily clear. From Exhibit
- 6 2. Tab A.
- 7 Q. Why don't you tell me what the source is for the annual
- 8 listing demands in that levelized demand charge.
- 9 A. Let me trace them back here. They're at the bottom of the
- 10 page of the study.
- 11 Q. We're looking specifically at Lines 5, B, C, D and E,
- 12 right?
- 13 A. Well, I was actually looking at Line 6, but Line 5 -- Line
- 14 6 is derived from Line 5, so we can look at Line 5.
- 15 0. And Line 5 is a series of demand forecasts?
- 16 A. It is.
- 17 Q. And those come from Tab B, Pages 2, 4, 5 and 6?
- 18 A. That's what it says.
- 19 Q. And Tab B, Page 2, is where the 2.5 million for the first
- 20 year comes from?
- 21 A. From the first year, yes.
- 22 Q. And that demand indicates that it's based on 841,282
- 23 updates times three customers?
- 24 A. Let me do the calculation there, because it actually starts
- 25 with daily updates, averaged through October, gets them down to

- 1 an update per day, yes, and then multiplies them by the three
- 2 customers.
- 3 Q. Okay. So have we come full circle now and would you agree
- 4 that the 2-1/2 million dollar -- or 2-1/2 million number of
- 5 updates is already assuming three customers?
- 6 A. It appears that it is.
- 7 Q. Okay. So when your Exhibit 7 -- when you used that as your
- 8 demand and then you also multiply or divide by five, the effect
- 9 of that is to assume that there are 15 customers, not five?
- 10 A. Is that a question?
- 11 O. Yes.
- 12 A. What I would suggest is that the number on -- that there's
- a mistake on my calculation in Exhibit 7, that the proper way to
- 14 determine the number at Line 10 on that would be to go back to
- 15 this Tab B, Pages 2 through, I think, 6, and calculate that
- 16 total demand on five carriers instead of three and then divide
- 17 by that number.
- 18 Q. Okay. And other than making that adjustment, if we made
- 19 just the correction now to take out the three carriers, that
- 20 would make -- your .00758 would turn into something like .023?
- 21 A. Assuming you've done the calculation.
- 22 Q. I'm doing it in my head, but .00758 times three?
- 23 A. Now you're scaring me.
- 24 Q. Subject to check.
- 25 A. I would agree with that, that makes logical sense to me.

1 Q. And when you add the 13 percent and get to .0088, then

2	we're up to 2.64, aren't we?
3	A. I would accept your math. I told you the way that I think
4	you should do it.
5	MR. HART: Your Honor, this is a good place to break.
6	THE EXAMINER: Let's break until 1:30.
7	(Luncheon recess taken.)
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	COLUMBUS, OHIO (614) 431-1344
1	PROCEEDINGS
2	
3	Wednesday, March 17, 1999
4	Afternoon Session
5	• • •
б	THE EXAMINER: Back on the record.
7	Mr. Hart.
8	
9	CROSS-EXAMINATION (continued)
10	BY MR. HART:
11	Q. Mr. Starkey, I want to move on to the topic of entrance

- 12 facilities, which begins at the bottom of 33 in your
- 13 supplemental testimony.
- 14 A. Okay.
- 15 Q. I understand that on the general topic of interoffice
- 16 transport, you're deferring to Dr. Ankum except for entrance
- 17 facilities?
- 18 A. Yes, though some of my recommendations, for example, fill
- 19 factors, affect all of the studies; but, yes, generally, I think
- 20 that's true.
- 21 Q. Okay. And you focused on entrance facilities in your
- 22 supplemental testimony separate from interoffice transport in
- 23 general?
- 24 A. Yes, based upon -- and my understanding of the fact that
- 25 entrance facilities are far more comparable to a loop facility

- 1 than they are an interoffice facility.
- 2 Q. Now, you make a comment on Page 35 that Mr. Mette has too
- 3 narrowly defined an entrance facility.
- 4 A. Yes.
- 5 Q. And is your comment there directed to the issue of whether
- 6 they're provisioned point to point or on a ring?
- 7 A. No, I don't know that it's necessarily limited to that, but
- 8 that is an issue.
- 9 Q. Okay. Now, entrance facility is defined in the
- interconnection agreement between Cincinnati Bell and MCI, isn't
- 11 it?
- 12 A. Possibly.
- 13 Q. And is that the definition we ought to use?
- 14 A. Not necessarily. My -- The definition we should use -- And
- this gets back to the fact that whenever you do a TELRIC study
- 16 you're actually, unlike a TSLRIC study where you're trying to
- 17 determine the cost of a given service, you're trying to
- 18 determine the costs of the facilities that are in place to
- 19 provision the service.
- 20 So if the facilities in place to provision an entrance
- 21 facility are the exact same costs associated with provisioning a
- 22 loop -- and I'm not suggesting that they are, but I'm suggesting
- 23 that if they were -- the costs for the two shouldn't differ.
- 24 The definition shouldn't be narrowly focused any more than it
- has to be to aggregate the proper facilities that you're

- 1 interested in costing.
- Q. Well, aren't we here to set prices for unbundled elements
- 3 that competitive carriers will actually purchase?
- 4 A. Well, I don't know that it is that limited, but that's
- 5 possible, though we have to recommend that that's a broader
- 6 category than what's included in MCI's interconnection
- 7 agreement.
- 8 Q. Well, for purposes of the unbundled element of entrance
- 9 facility, wouldn't we want to look at the definition of that
- 10 element in order to decide what it is we're pricing?
- 11 A. I think I just answered that question, no, not necessarily.
- 12 You would want to look at facilities required to provide the
- 13 functionality necessary to provision an entrance facility and
- 14 you would cost those particular facilities.
- 15 Q. Well, should we look at the agreement to define the
- 16 functionality of an entrance facility?
- 17 A. Not necessarily.
- 18 Q. Where should we look to define entrance facility?
- 19 A. What you should do is define what it is that you're
- 20 costing. For example, a loop. The --
- Q. Well, we're on entrance facility, so I want you to define
- 22 entrance facility.
- 23 A. Well, I appreciate that. I'm just making an analogy that
- 24 will help me define entrance facility.
- The analogy I was making is the loop. Nowhere in the

- 1 interconnection agreement or anywhere else does it specifically
- 2 speak to the fact that it has to go through a pedestal, that it
- 3 has to go through a stub to a telephone pole.
- Whenever you look at a given facility, the loop is
- 5 basically a connection between the main distribution frame and
- 6 the network interface device. What I am suggesting is the
- 7 entrance facility is, as Mr. Mette defines it in his testimony,
- 8 and maybe I should just quote -- well, I don't have his
- 9 testimony here, so I'll paraphrase -- is a connection between a
- 10 CBT CO and a NEC location.
- 11 Q. Okay. Isn't that the same as the definition in the
- 12 agreement?
- 13 A. I don't know. I've already said I don't know what that
- 14 definition is.
- 15 Q. Okay. I guess maybe I've got a bigger conceptual problem
- 16 here, and that is: Where is it that we're supposed to look to
- 17 definitively define the unbundled element that we're trying to
- 18 cost?
- 19 A. I think first -- the first place you should look is in the
- 20 FCC's order. The FCC's order defines, at least in my opinion, I
- 21 understand there's some controversy over that now since the
- 22 Supreme Court has come out, but my understanding is the FCC
- specifically defines exactly what these network elements are.
- Now, it doesn't get to the point where it tells you that
- you should include all pedestals. Obviously, that level of

- 1 detail isn't available. But it does speak to the fact that is
- 2 the main distribution frame to the network interface device. I
- 3 think that's a good place to start. I think you'll point out
- 4 that the FCC order doesn't define entrance facility.
- 5 Q. That's what I was going to ask you, is whether it did.
- 6 A. And I'm not quibbling with Mr. Mette's definition of the
- 7 network element of an entrance facility in terms of how he
- 8 defines it, except I think he defines it too narrowly in
- 9 assuming that a NEC location must be an existing IXC point of
- 10 presence, which is how the study is built.
- 11 Q. So that's where you're quibbling, is where the exact
- 12 locations are?
- 13 A. I guess, though I would say what my basic quibble, for lack
- 14 of a better word, is, I think, a facility, entrance facility,
- 15 call it a loop, call it entrance facility, or whatever you want,
- 16 what we're really talking about is DS1 connectivity between
- 17 CBT's central office and some other nonCBT central office
- 18 location.
- 19 Q. Okay. And so if we're going to do a TELRIC study on the
- 20 universe of that element, we'd want to see where the existing
- 21 customers are for that element?
- 22 A. A DS1 connectivity between the CBT central office and
- 23 another location, yes, I would think that would be the
- 24 appropriate universe. That extends beyond the current IXC point
- of presence that Mr. Mette used in his testimony.

- 1 Q. I thought you said we look at current customers.
- 2 A. I did.
- 3 Q. Who are the current customers for entrance facilities?
- 4 A. Well, now you're using the term "entrance facility", and I
- 5 was using the term DS1 connectivity between the CBT central
- 6 office and a nonCBT central office location. So I would use
- 7 anybody who has DS1 connectivity between a CBT central office
- 8 and a nonCBT central office location.
- 9 Q. Okay. And who are those people other than IXCs?
- 10 A. There's a whole bunch of folks that have DS1 circuits, my
- 11 understanding. I don't know exactly within CBT's network, but
- 12 if it's anything like any other network we've looked at, and I
- 13 can't imagine why it wouldn't be, there's a lot of DS1
- 14 connectivity between nonCBT CO locations and the CBT CO.
- 15 Q. Well, can you identify any nonCBT central office in
- 16 Cincinnati?
- 17 A. Yeah, any location -- any address that isn't a CBT central
- office location would be a nonCBT central office location.
- 19 Q. Well, I thought --
- 20 A. I could make one up.
- 21 Q. I thought the element's defined as connectivity between a
- 22 CBT central office and somebody else's central office.
- 23 A. Well, maybe that's your definition. That's not what I have
- 24 said. I have said it was the CBT central office and a nonCBT CO
- 25 location.

- 1 Q. So a nonCBT CO location would be somebody else's C
- 2 location -- CO location?
- 3 A. Are you asking me if I agree with that?
- 4 O. Yeah.
- 5 A. No.
- 6 Q. So you disagree with the definition that MCI agreed to in
- 7 the contract?
- 8 A. I'm saying it's irrelevant to determining what the proper
- 9 way to cost DS1 connectivity between a CO location and another
- 10 location is. And again, I point to the simple fact that that
- interconnection agreement will ultimately expire.
- 12 Q. So you're predicting what the next one's going to say?
- 13 A. I'm not. I'm simply saying that we shouldn't be
- 14 constrained -- Well, and there's another issue here, too, which
- is the fact that, and I think Ameritech is an example, the
- 16 Ameritech TELRIC rates, if you want to call them that, went into
- 17 a common tariff -- a tariff of common applicability where people
- 18 could buy them out of the tariff, not out of a specific
- 19 interconnection agreement.
- 20 O. And does the tariff define what the element is?
- 21 A. It does. Does it define it the same way in which all the
- 22 interconnection agreements do? No, it doesn't.
- 23 Q. Does Cincinnati Bell have any interconnection agreements
- 24 that define "entrance facility" other than the way it's defined
- 25 in the MCI agreement?

- 1 A. I don't know.
- 2 Q. What good is the interconnection agreement if we just
- 3 ignore it when it defines what the elements are?
- 4 A. Well, any agreement is, one, good for the time within which
- 5 it's an executable agreement, so we have to understand that it
- 6 expires. So after it expires, it starts as a starting point to
- 7 negotiating a new agreement. We could go through any list of
- 8 things of what it's good for.
- 9 But is it good for -- as an authoritative source of
- 10 defining a given network element? My suggestion is it is not,
- 11 it is not the only authoritative source.
- 12 Q. Okay. So MCI could come into a TELRIC hearing and define
- 13 elements any way we'd like regardless of what it agreed to in
- 14 the agreement?
- 15 A. Are you asking me if that's legally possible?
- 16 O. Yeah.
- 17 A. I don't know.
- 18 Q. Okay. I take it the basic objection you have is that you
- 19 want point-to-point facilities priced separately from ring-based
- 20 facilities?
- 21 A. I think that's a simplification, and I think my
- 22 recommendation or what my desire would be, that when we talk
- about an entrance facility, when we talk about an unbundled
- loop, when we talk about anything, simply any facility that
- connects two points, we should be costing that dependent upon

- 1 the level of capacity available, not whether it goes to an IXC
- 2 POP, whether it goes to a customer location, customer premises
- 3 or what. We should cost it based upon the TELRIC standard,
- 4 which is based upon the facilities, costing the facilities that
- 5 provision that network.
- 6 O. And DS1 facilities between a CBT central office and a
- 7 nonCBT central office consist of both point-to-point systems and
- 8 ring systems, don't they?
- 9 A. That's possible. My point in my testimony is that you
- 10 looked at too small a subset of the overall DS1 connectivity
- 11 between two points. That is, you looked at the IXC population,
- 12 which probably has a more prevalent use of the nonpoint-to-point
- 13 architecture.
- 14 Q. Well, shouldn't we include both point-to-point and the
- 15 ring-based architecture in pricing the total element?
- 16 A. Well, now you're talking about pricing as opposed to
- 17 costing.
- 18 Q. Well, let's go back to the word "cost" then if that's your
- 19 hangup.
- 20 Does the cost of the total element take into account both
- 21 point to point and ring?
- 22 A. I'm not sure I'm hung up, but what I would say is that
- there are costs associated with a given architecture. You
- 24 determine, just like Mr. Mette did in the unbundled loop study,
- 25 there are different costs associated with DLC architecture and

- 1 different costs associated with the copper loop architecture.
- 2 Those were melded together to come up with an average cost.
- 3 I'm saying there are circumstances where that's
- 4 appropriate and there are circumstances where it may not be as
- 5 beneficial. I'm suggesting that in the CO entrance facility
- 6 example, the costs between those two architectures are so
- 7 disparate and they actually provide different services, that
- 8 they should be broken up and you should be able to buy them
- 9 either as a direct point-to-point basis or as a ring basis.
- And as I talk about in my testimony, the fact that it's on
- 11 a ring gives you additional functionality that being on a
- 12 point-to-point basis doesn't, so there are those additional
- 13 costs to actually provide additional functionality. And the
- 14 consumer, in this case the competitors, should be able to choose
- 15 which of those functionalities they want and, hence, receive the
- 16 resultant costs from those two architectures.
- 17 Q. So when we determine the cost of a point-to-point facility,
- 18 we should ignore all of the rings and just price the
- 19 point-to-point facilities, right?
- 20 A. Well, you would determine the cost basis of a
- 21 point-to-point facility, an average point-to-point facility.
- 22 Q. Okay. So then you're redefining entrance facility into
- 23 point-to-point entrance facility and ring-based entrance
- 24 facility?
- 25 A. Well, whether you define it that way or not, that's the way

- 1 it comes out because, as I said, if you put it on a ring, then
- 2 you have cable diverse redundant SONET technology. That's a
- 3 different service than point-to-point T1 capacity. If a carrier
- 4 chose to have cable redundance on a technology, I would think
- 5 that they should then be required to pay the costs associated
- 6 with that technology.
- 7 Likewise, if a carrier simply wants point-to-point
- 8 connectivity at a T1 rate or a DS1 rate, same thing, then they
- 9 should receive the resultant costs associated with that.
- But there's a very big difference between the services that
- are provided over that. I'm saying that TELRIC appropriately
- 12 looks at the facilities involved more than it looks at the
- 13 particular service or the definition of that service.
- 14 Q. What I'm trying to get at is in order to determine the cost
- 15 of a point-to-point facility, should we only look at the
- 16 universe of point-to-point facilities?
- 17 A. If our task is to determine the TELRIC cost of a
- 18 point-to-point facility, then yes, we would look at only
- 19 point-to-point facility.
- 20 Q. And if we want to know the cost of a ring-based entrance
- 21 facility, you would recommend we only look at rings?
- 22 A. Yes, given the caveat that you're going to provide rates
- 23 for those services differentiated between the two architectures.
- 24 Q. And you would expect the rate on the ring to be higher than
- 25 the point-to-point ring -- rate?

- 1 A. Well, now you're more deeply into Dr. Ankum's testimony,
- 2 which would suggest that that's sort of a nonintuitive result of
- 3 the CBT studies. So I don't know exactly what I would -- what I
- 4 would think.
- Actually, if I looked at it intuitively in my own mind, I
- 6 would think that a ring architecture might be very comparable
- 7 because while it does provide additional services, it's also
- 8 likely to accommodate a greater number and types of services so
- 9 the investment associated with that ring might be unitized over
- 10 a greater number of demandable units.
- 11 Q. In fact, the fill may be different on a point-to-point
- 12 system than on a ring system, wouldn't it?
- 13 A. Well, it could be different. I don't know that you could
- 14 say that it's causal because you're using two different types of
- 15 architecture.
- 16 Q. Well, a point-to-point facility only goes one place, right?
- 17 A. It goes out there and comes back; yeah, it goes to one
- 18 place.
- 19 Q. And so the customer kind of dictates the capacity that's
- 20 going to be run on that system?
- 21 A. Not necessarily. Because you have to recommend that the
- 22 Fujitsu FACTR system that's also capable of providing DS0s is
- 23 also capable of providing DS1s. You're simply using a bit of
- 24 the capacity of that system now to provide a DS1 grade signal as
- 25 opposed to a DSO grade signal.

- 1 Q. If that customer wants one DS1 and they want it provided on
- 2 a point-to-point entrance facility, you still have to put out
- 3 all this common equipment in order to provision that, don't you?
- 4 A. To provision the DS1 you would have to have both the
- 5 line-specific and the common equipment.
- 6 My point was that that common equipment isn't simply
- 7 divided by that DS1, that common equipment is also used to
- 8 accommodate the DSOs that are also likely provisioned over that
- 9 FACTR piece of equipment.
- 10 Q. But the -- the factors that go into determining what the
- 11 fill will be on a point-to-point system are different than the
- 12 factors that will determine the fill on a ring system, aren't
- 13 they?
- 14 A. No.
- 15 Q. So the customer who demands a point-to-point system has no
- influence over the fill that will be achieved on that system?
- 17 A. I think it's unlikely that they would.
- 18 Q. You would agree with me that on a ring system that serves
- 19 multiple locations, that Cincinnati Bell would have more control
- 20 over the fill on that system than the customer would?
- 21 A. No. I think I've already suggested the customer has no
- 22 control in either circumstance, so it would have no more or less
- 23 control on either system.
- 24 Q. You didn't listen to my question. I asked you whether
- 25 Cincinnati Bell had more control over this -- over the fill on a

- 1 ring system than the customer would have.
- 2 A. I did listen to your question. What I said was the
- 3 customer has no control in either circumstance, so there's no
- 4 way to compare the extent to which CBT has more control in one
- 5 circumstance than in the other. They have total control in both
- 6 circumstances.
- 7 O. So that would be more than the customer?
- 8 A. Well, but you asked me to compare that with the point to
- 9 point. It wouldn't be more --
- 10 Q. No, I didn't.
- 11 A. -- than the point to point.
- 12 Q. I asked you to compare Cincinnati Bell's control versus the
- 13 customer's control on a ring system.
- 14 A. Versus a point to point? Maybe I mis- --
- 15 Q. No, I didn't --
- 16 A. -- -understood your question.
- 17 Q. I didn't ask you that.
- 18 A. Well, maybe if I could have it read back.
- 19 Q. Let's not bother wasting the time.
- 20 If the customer wants cable diversity, they should pay
- 21 more, shouldn't they?
- 22 A. Only if providing that cable diversity costs more.
- 23 Q. Doesn't it?
- 24 A. Again, I suggested that gets more to Dr. Ankum's testimony
- 25 where he suggests that the CBT studies that do conclude that

- 1 very thing are unintuitive with respect to the way they
- 2 charged -- well, costed interoffice facilities. That's his
- 3 testimony. I don't know.
- 4 Q. I'm not asking you what he said. I'm not asking you what
- 5 Cincinnati Bell does. I'm asking you, is it a fact of life that
- 6 cable diversity costs more than point-to-point cable?
- 7 A. In some circumstances it might, in some circumstances it
- 8 might not. I don't think you could make that definitive
- 9 statement.
- 10 Q. Then why are you suggesting that we should not price this
- 11 as if it's diverse?
- 12 A. Because it's the right way to do it.
- 13 Q. It has no relationship to its cost?
- 14 A. Well, there is a relationship. The relationship is that --
- 15 The relationship is that the costs will result in the way I have
- 16 suggested. It doesn't have anything to do with whether one
- 17 might be cheaper than the other.
- 18 Q. Are you suggesting that entrance facilities should be based
- 19 on Cincinnati Bell's loop lengths?
- 20 A. I think that I would continue to suggest what I suggested
- 21 earlier, which is the proper way to do a point-to-point study
- 22 for DS1 capacity, call it an entrance facility, call it a loop,
- 23 call it whatever you want, basically it's the connectivity of
- 24 one location to the CBT central office at a DS1 level, the right
- 25 way to do that is to determine your current customer base for

- that type of connectivity and determine the average
- 2 characteristics of that type of facility.
- 3 Q. Well, that's different than the customer base for DSO
- 4 loops, isn't it?
- 5 A. It quite likely is.
- 6 Q. Okay. I'm asking about Page 41, the sentence on Lines 5
- 7 through 8. And tell me whether you're suggesting there that
- 8 Cincinnati Bell's loop length study should be used as the basis
- 9 for the cost of entrance facilities.
- 10 A. Well, I think what I'm suggesting there is a proxy. And I
- 11 think the reason I'm suggesting that is we talked earlier about
- 12 the Fujitsu FACTR system and its ability to provide a DS1
- interface. My guess is you're not going to move those remote
- 14 terminals for the Fujitsu FACTR system solely to provision DS1
- 15 for an entrance facility. You've already gotten them
- 16 provisioned in your loop network.
- 17 I'm suggesting that we not necessarily do a study to move
- 18 those to where they're perfect for the DS1s, but that they can
- 19 stay where they are and we use the loop study.
- Now, if we were to do that, if we were to suggest that you
- 21 should do a study specific to those DS1s, which is what I think
- 22 is the best way to do it, I think you would find that those loop
- 23 lengths are far shorter than the loop lengths associated with
- 24 the loop study.
- It's been my experience in every study we've ever done and

- 1 every network we've ever looked at that high-capacity DS1
- 2 signals are generally a little shorter length from the central
- 3 office because they're generally business based than are loops
- 4 as a general matter.
- 5 Q. Well, let me just ask you directly again: Are you
- 6 recommending that the entrance facilities be priced according to
- 7 the loop lengths in Cincinnati Bell's loop study, or are you
- 8 not?
- 9 A. That's my recommendation in this case. I was simply
- 10 clarifying the matter that that is, and we talked about this in
- 11 my deposition, there are certain shortcuts you make. I'm not
- 12 suggesting that's the perfect way to do it. The perfect way to
- do it would be to have CBT go back out, measure all of its DS1s
- 14 to get an average facility composition type and redo the study.
- 15 I understand that we're under a time constraint, I understand
- 16 that this is not a perfect proxy, but it is my recommendation.
- 17 Q. Let's go to the loop transport combination. Again, I
- 18 believe you are leaving the interoffice piece of this to
- 19 Dr. Ankum; is that right?
- 20 A. That's correct.
- 21 Q. And I take it you also agree with the general concept of
- 22 how Mr. Mette developed rates for the loop transport
- 23 combination?
- 24 A. Again, there's one of those loaded questions. "The general
- 25 concept", you might need to be a little more specific.

- 1 Q. Well, the fact that you price a loop and you price the
- 2 transport and you price what it takes to put the two together.
- 3 A. No, you know, I don't think I am necessarily comfortable
- 4 with the way Mr. Mette has done that.
- 5 Q. Well, you would include the price of a loop, wouldn't you?
- 6 A. Yes, you would. The thing you wouldn't want to do is
- 7 include the costs associated with a piece of equipment that
- 8 might be both common to loop and common to common transport and
- 9 recover it twice whenever you combined those two elements.
- 10 Q. Well, which piece did he combine twice?
- 11 A. Well, if you take a look at the unbundled loop on an
- 12 integrated basis -- and I think that's MCI Exhibit -- I had it
- 13 here a second earlier -- MCI Exhibit 5, you'll see that included
- in the integrated loop is investment associated with an FLM 150
- and a DSX1 cross-connect panel. If you go to the interoffice
- 16 transport piece, you see again there is investment associated
- 17 with an FLM 150 and a DSX1 cross-connect panel.
- My analysis is that at least that FLM 150 is recovered in
- 19 both the loop and the common transport, such that it would be
- 20 double recovered. I still need to do further analysis with
- 21 respect to the DSX1 cross-connect because I believe you may
- 22 actually need two separate jacks in the DSX1 to accomplish what
- 23 Mr. Mette has suggested, but I need further analysis to make
- 24 sure that that is the case.
- Q. Well, the combination that's defined in MCI's contract is

- 1 the DSO loop, isn't it?
- 2 A. It could be. In fact, it is. There are two combinations,
- 3 DS loop and DS1.
- 4 Q. Well, it's not a DS1 loop, it's a DS1 transport interface,
- 5 isn't it?
- 6 A. Right. I'm sorry. DSO loop to DS1 common transport and
- 7 then DSO loop to DSO common transport.
- 8 Q. So we need to price the DSO loop and we need to price
- 9 transport, whether it be DSO or DS1?
- 10 A. Well, you need to price that -- well, cost, more
- 11 specifically, that combination, yes. Where they use common
- 12 equipment and you only need one to do the combination, but you
- 13 might need two to do them separately, then you would include
- 14 only one.
- 15 Q. Now, am I correct that TELRIC rates are not based on retail
- 16 rates?
- 17 A. I always avoid using the term "TELRIC rates",
- or I try to. TELRIC costs are independent of retail rates, and
- 19 I would define TELRIC rates as simply TELRIC costs plus a shared
- 20 and common additive.
- 21 Q. Okay.
- 22 A. So I would say they're independent of retail rates.
- 23 Q. When I use the word "TELRIC rates", would you accept that
- 24 that means TELRIC cost plus 13 percent common overhead?
- 25 A. I can accept that.

- 1 Q. Okay. Now can you answer my question: Should TELRIC rates
- 2 be based on retail rates?
- 3 A. I think I suggested they should be -- they are independent,
- 4 so no.
- 5 Q. Would you agree with me that Cincinnati Bell doesn't offer
- 6 at retail a loop transport combination?
- 7 A. I don't know. I -- Actually, you know, I would suggest
- 8 that they probably do. I'm sure they have central office FX
- 9 service that extends a loop from one central office to another,
- 10 but it may include a little bit more functionality than just the
- 11 loop transport because it provides foreign dialtone, but I think
- 12 they provide things that are very similar to that.
- 13 Q. It is probably not provisioned as a DSO loop and DSO
- 14 transport, is it?
- 15 A. I don't know. It might be.
- 16 Q. Turn to the topic of nonrecurring charges again that you
- 17 revisit in the supplemental testimony, in particular your
- 18 Exhibit No. 8.
- MS. SANDERS: I'm sorry, what was the page reference,
- 20 Mr. Hart?
- 21 MR. HART: Exhibit 8.
- MS. SANDERS: Oh, Exhibit 8. Thank you.
- 23 BY MR. HART:
- 24 Q. I understand this is your effort at dividing the loop
- establishment charge into a per-order and per-loop rate; is that

- 1 right?
- 2 A. That's correct.
- 3 Q. When you did this, you removed all manual order processing
- 4 type?
- 5 A. Yes, I did. All manual order processing.
- 6 Q. And you removed all removal costs?
- 7 A. I did remove all removal costs, yes.
- 8 Q. And you removed 50 percent of the time associated with
- 9 field visits?
- 10 A. I did.
- 11 Q. Now, Cincinnati Bell will not avoid 100 percent of removal
- 12 costs, will it?
- 13 A. I'm trying to think through the extent to which we can know
- 14 that given the fact that what we're looking at here is not a
- 15 forward-looking, nonrecurring charge development. I don't think
- 16 I can answer that question as "yes" or "no".
- 17 Q. Well, let me give you some hypotheticals and ask you
- 18 whether it would incur a removal cost.
- 19 If Cincinnati Bell has sold an unbundled loop to a CLEC,
- let's say it's MCI, for example, and has cross-connected that to
- 21 MCI's cage, if MCI informs Cincinnati Bell that it no longer
- 22 needs that loop, wouldn't Cincinnati Bell remove the
- 23 cross-connect?
- 24 A. You're talking about a DSO-level loop.
- 25 Q. Yes, or any unbundled element, for that matter.

- 1 A. That's possible. I don't know that it's necessarily
- 2 required.
- 3 Q. Well, to make it nonfunctional, the loop would have to be
- 4 disconnected at some point, right?
- 5 A. At some point, yes. I don't know if that happens at the
- 6 cross-connect or not as you suggested.
- 7 Q. Well, if we're looking at a copper DSO loop, where else
- 8 would you disconnect it other than the cross-connect?
- 9 A. Well, there's any number of cross-connection points. You
- 10 could disconnect it at the main distribution frame.
- 11 Q. Is that the most likely?
- 12 A. I think that happens on occasion, yes.
- 13 Q. Is that the most cost effective place to remove loop?
- 14 A. I've not done that analysis.
- 15 Q. Well, that can be done without a field visit, right?
- 16 A. Disconnecting at the main distribution frame?
- 17 Q. Right.
- 18 A. Yes.
- Well, let me rephrase that. Yes, it can be if you have
- 20 people in the CO. There are nonmanned COs.
- 21 Q. If the CO is not manned, somebody has to go out there?
- 22 A. Yes.
- 23 Q. Now, your removal of 50 percent of field visits, am I
- 24 correct that you based that on your analysis of the
- 25 cross-connectibilities of the Fujitsu FACTR system?

- 1 A. I think I base that on a couple of things, but I would
- 2 agree that that was one of my factors.
- 3 Q. What other factors do you take into account there?
- 4 A. Well, one of the issues we have to remember is that
- 5 whenever we design this loop and we estimate our forward-looking
- 6 monthly TELRIC recurring costs associated with that loop, we pay
- 7 to splice that loop all the way through.
- 8 That was included in those -- in those big cable things we
- 9 were talking about earlier, that 605 -- or, 650 percent of the
- 10 cost of the piece of cable, we start with a dollar of cable and
- 11 later you come up with \$6.50 worth of cable because you've paid
- 12 somebody to go out and splice that -- one of the things you've
- 13 paid for them to do is go out and splice that all the way
- 14 through.
- So one of the things I think we have to be cognizant of
- 16 whenever we do nonrecurring charges is we have to assume that
- 17 that loop is spliced all the way through.
- 18 Now, CBT has said there are examples where that won't be
- 19 the case and they've said 86 percent of the time that won't be
- 20 the case. As I have looked over the nonrecurring charge study,
- 21 they based that simply on the extent to which they have to do
- 22 that today for residential and business customers.
- What I am suggesting is that's not the relevant universe to
- look at because we've already assumed that we're paying for that
- in the monthly recurring charge to some extent. So I think

- 1 there is a factor associated with the fact that we've already
- 2 recovered some of those costs.
- 3 Second, I would say that even on top of that, the Fujitsu
- 4 FACTR system allows for a cross-connect, a software
- 5 cross-connect within the remote terminal that, as Mr. Meier
- 6 explained to us the other day, could be done on a PC located
- 7 anywhere on that fiberoptic or that -- actually, any -- any
- 8 electrical connection to that fiberoptic ring.
- 9 So assuming that 86 percent of the time we have to send
- 10 somebody out to the field I think is not a realistic assumption
- 11 given our forward-looking technology of the Fujitsu FACTR
- 12 system.
- So what I have done, and I would be the first to admit that
- 14 I haven't been able to delineate with a calculation exactly what
- it should be, I have suggested that instead of 86 percent of the
- 16 time it should be -- reduce that by 50 percent. And this is an
- interim proposal, by the way, until a time and motion study is
- 18 done.
- 19 Q. And you're suggesting that the 50 percent should apply to
- 20 every loop, right?
- 21 A. That's correct. Well, it should -- it should be applied to
- 22 the nonrecurring charge calculation, and then you -- I assume
- 23 you're going to apply that to every loop.
- 24 Q. Okay. Regardless of whether the loop's provisioned on
- 25 copper or digital loop carrier?

- 1 A. That's correct.
- 2 Q. Let me try to make sure we understand one another here, if
- 3 I could try to draw.
- 4 Let's say I have a central office and out in the field I've
- 5 got serving area interface and out here is distribution to the
- 6 right (drawing).
- 7 A. Okay.
- 8 Q. And along here are drop terminals (drawing) --
- 9 A. Okay.
- 10 Q. -- which go to houses.
- And between the serving area interface and the central
- office, if we're on copper, this is copper feeder (drawing); is
- 13 that right?
- 14 A. Yes.
- 15 Q. Then the alternative is I might have digital loop carrier,
- in which case I have a DLC remote terminal that's on fiber?
- 17 A. Right.
- 18 Q. And there's electronics in the office on the other end of
- 19 that.
- And there are line cards in the DLC; is that right?
- 21 A. That's correct.
- 22 Q. And those have cables that come out and they go to the SAI,
- 23 right?
- 24 A. Well, partially. I would add another piece of equipment,
- 25 if I could.

- 1 Q. What do you want to add? I'll --
- 2 A. Actually, on the other side of the remote terminal they'll
- 3 come right out of the remote terminal into copper wires. There
- 4 is a -- I don't know exactly what you would call it, but there
- 5 is a cross-connect panel there --
- 6 Q. Okay.
- 7 A. -- that does connect to. That's exactly where the
- 8 software-driven cross-connect --
- 9 Q. There's something in here that terminates copper wire on
- one end and line cards on the other end?
- 11 A. That is correct.
- 12 Q. And this is what you're saying can be used to
- 13 electronically cross-connect?
- 14 A. Yes. It's called a time slot interchange and it's a
- 15 software cross-connect.
- 16 Q. Okay. Now, first of all, if we're on copper feeder, that
- 17 doesn't apply, does it?
- 18 A. Well, this point doesn't apply. The point I made earlier
- 19 still continues to apply and probably applies more specifically.
- 20 Q. The point about splicing?
- 21 A. Right.
- 22 Q. Okay. Am I correct that the SAI has a panel in it where
- 23 distribution pairs terminate on one side, feeder pairs terminate
- 24 on the other side and jumper wires cross-connect those two?
- 25 A. I never really thought of them as jumper wires. That could

- 1 be possible in some situations. It's generally just a
- 2 cross-connect block wherein you have feeder coming out on one
- 3 side where you terminate that cable, you have distribution that
- 4 goes out on the other side.
- 5 Q. But these are physically cross-connected with wires that
- 6 people go out and physically attach?
- 7 A. They are physically cross-connected with wires.
- 8 Q. Okay. Now, the loop study, when you mentioned splicing,
- 9 wouldn't that be -- if this cable has branches that come off at
- 10 different points and this distribution cable has branches, those
- 11 are splices, aren't they?
- 12 A. Well, yes, they are, but this is also -- this is also a
- 13 simple splice. I mean, there is -- What we're actually doing is
- 14 we're taking one pair of wire, whether that be in the feeder or
- distribution or to another part of the feeder, and we're
- 16 connecting it to the appropriate other piece of wire to
- 17 establish a circuit between any two given locations.
- 18 Q. Are these -- Are feeder pairs and distribution pairs
- 19 jumpered together until a line actually goes in service?
- 20 A. My understanding, and this is -- I'm taking it from the
- 21 cost study -- my understanding is that the cost study, through
- 22 its costs -- and let me see if I can show you specifically where
- 23 that is -- assumes costs associated with connecting through --
- 24 what I would call connecting through any copper pair from the CO
- 25 to the customer terminal. And then costs associated with

- 1 dropping from the customer terminal to the customer are included
- 2 in the drop costs.
- 3 As you can see, we've got -- we have a service area
- 4 interface cost directly in -- and I don't know how to refer to
- 5 this thing, it's the loop backup support wherein we determine
- 6 the investment associated with a given cable. We deal with the
- 7 investment all of the way from splicing, placing, engineering
- 8 all the way through the serving area interface, we include
- 9 investment for things like 900-pair cable stubs which might take
- 10 you from an underground or buried serving area interface to the
- 11 first telephone pole, which is what those things are associated
- 12 with. So we're talking about connecting a loop all the way from
- 13 the central office to the customer prem.
- 14 Q. What line item on that page is cross-connecting at the
- 15 serving area interface?
- 16 A. Well, I'm assuming it's wherever we talk about the ability
- 17 to splice pairs. We sort of are going down our list here of how
- 18 we get those cables into place. It's splicing, placing and
- 19 engineering costs associated with cutting that line through.
- 20 Q. Are you sure about that? Are you sure that includes SAI
- 21 cross-connects?
- 22 A. I'm not 100 percent sure because it doesn't say; but if it
- 23 doesn't, it should.
- 24 Q. Well, isn't that what the nonrecurring charge is, is to
- 25 make that cross-connect at the serving area interface?

- 1 A. That would assume that whenever we pay the rate for a --
- 2 for an unbundled -- Well, anyway, let's say it this way:
- 3 Whenever CBT determines the cost from a loop, the CO to the
- 4 customer premise, that loop won't work. I don't understand why
- 5 you would build your cost study that way.
- 6 My understanding is -- well, not my understanding, but my
- 7 position would be that you should build your cost study in such
- 8 a way that after you've built it, that loop is a workable
- 9 facility.
- 10 Q. Well, you understand that these distribution pairs go off
- 11 to different locations and all of the feeder pairs go back to
- 12 the central office?
- 13 A. That's my understanding.
- 14 Q. And the very purpose of the serving area interface is to
- 15 allow the matching of any given feeder pair to any given
- 16 distribution pair?
- 17 A. That's not different than the purpose of any drop terminal
- or any splice point in the network, is to attach a piece of wire
- 19 that comes in on one end with another piece of wire that comes
- 20 in on the other.
- 21 At any pedestal, you can change one wire to another wire;
- 22 that sort of cross-connection can be done. The serving area
- 23 interface is no different.
- 24 Q. And the drop terminal is limited to the end users right in
- 25 that vicinity, right?

- 1 A. Well, no, I don't think it is. It's generally done that
- 2 way, but we do things like dead lug throws where -- or wire out
- 3 of limits where you might borrow a copper wire from a given drop
- 4 terminal and place it to another one.
- 5 Q. But the common use of the drop terminal is to pick a pair
- 6 out of the distribution and send it to a house?
- 7 A. That's exactly what I'm talking about. Yes, the common use
- 8 of all of these things is to connect a loop from the CO to the
- 9 customer's premise.
- 10 Q. Okay. And Cincinnati Bell has two different nonrecurring
- 11 charge structures, doesn't it; one for establishing a loop and
- one for transferring a loop that's already been established?
- 13 A. That's my understanding.
- 14 O. And the --
- 15 A. Well, is that still --
- 16 Q. It's called migration, I believe?
- 17 A. That is still the case, yes.
- 18 Q. And the migration charge doesn't charge for work done at
- 19 the serving area interface, does it?
- 20 A. No, it doesn't.
- 21 Q. It charges for work done in the central office to attach
- 22 the feeder pair to the collocation cage?
- 23 A. Generally, that's correct, yes.
- Q. Now, the remote terminal cross-connect that you say can be
- 25 done electronically, what that does is assigns a time slot on a

- 1 fiber system to a copper pair on the subfeeder; isn't that
- 2 right?
- 3 A. That's correct. It connects -- It gives the DSO
- 4 distribution, which is at this point copper analog -- not DSO,
- 5 but a copper analog voice-grade circuit, it gives it enough
- 6 capacity at a DSO level to complete the circuit from that point
- 7 back to the CO.
- 8 Q. Okay. So that would get us between the CO and the SAI, we
- 9 could pick out a pair that goes to the SAI, right?
- 10 A. Well, you could interface -- you could interconnect any
- 11 feeder -- fiber feeder portion with anything that hangs off the
- 12 other side of that remote terminal.
- 13 Q. Okay. That remote cross-connect doesn't change any jumper
- 14 wires within the SAI, does it?
- 15 A. Not unless the remote terminal and the SAI are the same
- 16 thing, and many times they are.
- 17 Q. Well, in fact, many times this remote terminal might feed
- 18 other SAIs going other directions, doesn't it?
- 19 A. That is possible. Both situations occur.
- 20 Q. Yeah. Now, would you agree with me, and this is just -- I
- 21 think it was your estimation, that about 50 percent of CBT's
- 22 study is based on copper loops and about 50 percent on digital
- 23 loop carrier?
- 24 A. That varies by band. That's not even close in the outer --
- 25 Well, it's not even close in West 7th, for certain.

- 1 Q. West 7th is almost all copper, isn't it?
- 2 A. It's almost all copper. But -- I could tell you the exact
- number. There is an exact number, I don't know what it is off
- 4 the top of my head.
- 5 Q. In general, overall, is this kind of approximate, 50?
- 6 A. I don't want to agree until I actually look, but we can
- 7 look. Just a second.
- 8 It's generally in a range of between 45 and 55 one way or
- 9 another.
- 10 Q. But as you mentioned, West 7th is almost all copper because
- 11 of the shortness of the loops?
- 12 A. That's correct; and Band 3 is primarily more fiber feeder
- 13 than it is copper.
- 14 Q. Okay. So the impact of DLC cross-connects is going to vary
- 15 by band?
- 16 A. Yes, as will the application of connecting the copper
- 17 through in my first point, that would be more prevalent in
- 18 copper-based systems, whereas the software cross-connect would
- 19 be more prevalent in fiber-based systems.
- 20 Q. Okay. Now, when we're talking about the loop establishment
- 21 charge, do you understand that that is a loop that's not
- 22 currently in service to a given customer?
- 23 A. Well, that I was never exactly sure of, whether it meant
- 24 that it wasn't in service or whether it wasn't connected
- 25 through. Because you could have a line that rests out there

- 1 that is established but isn't currently being used. I never was
- 2 exactly sure about that.
- 3 Q. Okay. But let's start with loop migration. You understand
- 4 that loop migration is a loop that is actually being used by a
- 5 customer and it's going to be moved to another carrier?
- 6 A. Well, I don't know that -- The same point would apply. I
- 7 don't know whether if -- Let's say MCI -- Let's say a customer
- 8 in their house has two telephone lines hooked up but they've
- 9 only been using one for a period of time.
- 10 If MCI comes in and requests two unbundled loops, both of
- 11 those are connected, neither would require work at the SAI, but
- 12 I don't understand the extent to which at this point CBT would
- 13 charge us a migration for one and an establish for the other.
- 14 Q. I thought you said they were both in service?
- 15 A. No. I said they're both connected, only one is in service.
- 16 O. Okay.
- 17 A. Even though they had to do no differently -- they would
- 18 have to do nothing different for the one than the other. I
- 19 don't know the extent to which those are applied.
- 20 O. Okay.
- 21 A. I haven't been able to figure that out.
- 22 Q. So let me refine my deposition -- or, definition of
- 23 migration. Let's assume migration means a loop that's in use
- 24 and there's a paying customer on it.
- 25 A. Okay.

- 1 Q. Okay? You understand that in that situation, the only
- 2 thing that would have to be done to migrate that loop would be
- 3 to disconnect it from Cincinnati Bell's switch and send it to
- 4 the CLEC's point of presence?
- 5 A. I think that's right, yes.
- 6 Q. Okay. And if the loop is not currently in service, there
- 7 are a variety of activities that may or may not have to occur to
- 8 put that into service?
- 9 A. Well, again, we get back to my point. I don't think it's a
- 10 matter of whether it's in service or not that's important. It's
- 11 whether it's connected through.
- 12 Q. Okay.
- 13 A. So that line that might not be in service at that
- 14 customer's house, that second line, all you would still have to
- do to that line is turn it -- and you probably don't even have
- 16 it in the switch at this point because it's not in service --
- 17 all you would have to do is jumper that at the main distribution
- 18 frame or a collocation cage.
- 19 Q. Well, let's work backwards from the customer. Let's use
- 20 your second line example. Let's say this customer has a
- 21 two-line drop but only one of them connects. Would you agree
- 22 with me that one thing that might have to be done is to send
- 23 somebody out to jumper the second drop wire to another pair?
- 24 A. Well, that's a possibility, but we also have to remember
- 25 that costs associated with running a drop wire are included in

- the unbundled loop study.
- Q. Does it include the time to connect both wires in the drop?
- 3 A. Well, what it should assume -- the extent to which it does
- 4 or not, I couldn't point specifically to. What it should
- 5 assume, as I said before, is a connection from the CO to the
- 6 customer's premise, connected through. So instead of doing what
- 7 I think you're asking, which is at some point in time we've got
- 8 to send somebody out there to build the drop to the customer's
- 9 house, it's a matter of should they connect it at that point or
- 10 not.
- The study assumes you know your customers, you know the
- 12 customers assume -- the study assumes you know what your demand
- is, and so it should assume that you connect the drop at that
- 14 point in time and the appropriate number of circuits which you
- 15 need to serve that customer.
- 16 Q. Well, if you're recommending that we have an 85 percent
- 17 fill on distribution, I can't possibly connect two drops at
- 18 every house, can I?
- 19 A. Absolutely, you can.
- 20 O. I can?
- 21 A. Yes.
- 22 Q. Let's say I've got a 10 percent take on second lines.
- 23 Okay?
- 24 A. All right.
- 25 Q. And I've got 85 percent fill. Does that tell me -- and my

- 1 customer base is something like 77 percent of the line capacity.
- 2 A. Okay. Let's assume what else?
- 3 Q. So if 10 percent of these people have a second line, that
- 4 gets me up to 85, and a simple example, I've got 77 customers on
- 5 a 100-pair cable.
- 6 A. Okay.
- 7 Q. Okay. Now, those 77 customers, if I wanted to attach two
- 8 drops to each one of those, I would need 154 lines, wouldn't I?
- 9 A. Well, what you have to remember is you're holding something
- 10 constant here, which is the size of the cable. What I have
- 11 suggested is that the right way to do a TELRIC study is you know
- 12 this customer wants two lines, you know the customer next to
- 13 them doesn't, you know the customer next to them does. You
- 14 provision your network in the least-cost, forward-looking manner
- to provision exactly that number of lines.
- 16 Q. So do some customers get two wire drops and some get one
- 17 wire drop?
- 18 A. Depends on how many -- Depends on how many services they're
- 19 requesting in their premises.
- 20 Q. I'm asking, for TELRIC purposes, is that what I assume?
- 21 A. Yes.
- 22 Q. Okay. So when I go to establish a nonrecurring charge and
- 23 somebody asks for a second line, my nonrecurring charge ought to
- 24 include the price of adding a second drop wire, shouldn't it?
- 25 A. Well, no, that's where we disagree. Because this gets back

- 1 to our point, and we started to talk about it this morning, the
- 2 time frame within which you do a TELRIC study.
- 3 We talked about all the way through the deposition that the
- 4 right way to do the TELRIC study is to pick a point in time,
- 5 determine what the costs associated with provisioning the
- 6 services at that point of time is.
- 7 Now what you're suggesting is we moved out of that point in
- 8 time, now we're at some other place in the future and somebody
- 9 has requested another service. That is inconsistent with
- 10 determining the proper way to determine a TELRIC cost study.
- 11 Now, there are ways to do this, and we talked about this,
- 12 wherein what you could do is you could determine all of the
- 13 costs out over a given period of time and present value it back.
- 14 That's not what CBT has suggested and that's not what I have
- 15 suggested because it's a very difficult and complex product --
- 16 or, process.
- But we have to be true to the methodology we've chosen, we
- 18 can't mix and match the two. We've chosen to pick a point in
- 19 time and determine the costs associated with that point in time.
- 20 And the question you asked me undercuts that rationale and,
- 21 hence, it's not a logical extension of what we're trying to do.
- 22 Q. Well, if I picked that point in time, by definition, aren't
- 23 all nonrecurring charges after that point in time?
- 24 A. Well, again, we talked about this, and the fact that
- 25 nonrecurring charges to some extent are, in my opinion, somewhat

- 1 inconsistent with the TELRIC methodology, but assuming that
- 2 we're making these shortcuts that we talked about, yes, they do
- 3 assume out of time.
- But you can't ignore what you did in the TELRIC study. You
- 5 can't take the two of them mutually exclusively and recover the
- 6 cost twice.
- 7 Q. Okay. So let's try to be consistent here. You're telling
- 8 me if I do a point in time and this customer only takes one line
- 9 now, I should assume that he's only got one wire drop?
- 10 A. Unless they don't come in one-wire drops. I mean, there
- 11 are parameters. I mean, if they only come in two-wire drops,
- 12 then that's your only option, to put two in.
- 13 Q. Or maybe I put a two-wire drop in, but I only connect one
- of them because there's no service going to that house on the
- 15 second line?
- 16 A. You would do in the least cost manner.
- 17 Q. Okay. So doesn't that mean, then, when I do my
- 18 nonrecurring charge, being consistent and true to my TELRIC
- 19 study, I would have to include whatever cost would be additional
- 20 in order to make a second line to that house serviceable?
- 21 A. No, because you're not being consistent. You're picking a
- 22 different point out of time. That's inconsistent with what
- 23 we've done.
- 24 Q. Well, then, to be consistent, would I have to tell that
- 25 customer he's out of luck because my study says he only gets one

- 1 wire?
- 2 A. No. To be consistent, you would redo your entire TELRIC
- 3 study at each given point in time, and it's an iterative
- 4 process, and I've told you that's not the easiest way to do it.
- 5 Q. Okay. So every time we get an order, are we going to come
- 6 back up here and have a hearing?
- 7 A. I think I suggested that's not what I'm suggesting, but you
- 8 have to be consistent, you have to do one of two things. You
- 9 can't take one way to do it and take the good points of it and
- take the bad points of the other one and do both. You have to
- 11 be consistent with your methodology.
- 12 Q. Okay. Well, let's just talk about all the different points
- where something might have to be done to make a line
- 14 serviceable. We've talked about the drop. Would you also agree
- that at some point somebody's got to take the pair that's
- 16 attached to that drop and make sure that it's attached to a
- 17 feeder line?
- 18 A. Say that again.
- 19 Q. At some point, somebody's got to attach the pair in the
- 20 distribution network that connects to that home to a live pair
- 21 in the feeder network.
- 22 A. That's true, they do. And what I've suggested the proper
- 23 way to do that is when you're placing the network, connect it
- 24 through.
- 25 Q. And if I do that, then every feeder pair should match a

- 1 distribution pair?
- 2 A. Well, again, understanding that there might be some
- 3 breakage associated so you may have some that don't connect, but
- 4 the vast majority would be connected.
- 5 Q. Aren't there more distribution pairs than feeder pairs?
- 6 A. You mean in the real world or --
- 7 Q. Yeah.
- 8 A. -- in a properly done TELRIC study?
- 9 Q. In the real world.
- 10 A. Sometimes that is the case.
- 11 Q. And typically doesn't an SAI have 900 pairs coming in and
- 12 1,800 local pairs?
- 13 A. I know that's the way you assumed it in your study, but I
- 14 don't know that that's necessarily an industry standard or
- anything of that nature. But what your -- The point that you're
- 16 making is, again, a point in time point which is they normally
- 17 do this but the plant distribution for the ultimate demand of a
- 18 given location they realize they can supplement fiber -- or, I'm
- 19 sorry, feeder later on so that there is generally in some -- in
- 20 some instances distribution pairs of a greater number than there
- 21 are feeder pairs.
- Again, what I have suggested when you do a TELRIC study,
- 23 you have to determine the least cost way to provision your.
- 24 current customer base. If you were to do that, that wouldn't
- 25 necessarily be the case.

- 1 Q. Aren't we supposed to use current technology as well?
- 2 A. Current technology, yes.
- 3 Q. And isn't this how current technology builds service
- 4 area -- serving area interfaces, with two pairs leaving for
- 5 every pair coming in?
- 6 A. That's not what -- That's not dictated by the technology,
- 7 no. That's dictated by the fact that demand over time is an
- 8 issue that they must deal with.
- 9 Q. I'm asking you: Is that how manufacturers sell the
- 10 equipment today?
- 11 A. To accommodate more distribution pairs than feeder pairs?
- 12 Q. Yes.
- 13 A. My understanding is that SAIs are generally a modular
- 14 component that you don't -- you aren't limited to the single
- number of distribution pairs you might have at any given point
- in time. So you build it to whatever you need it.
- 17 Q. Don't they come with cable stubs molded into the box?
- 18 A. That, I don't know.
- 19 Q. Do you think Mr. Meier would know more about how serving
- 20 area interfaces are built than you would?
- 21 A. That's possible, but what we're arguing about here is not
- 22 how a serving area interface is built, we're arguing about the
- 23 proper way in which it's costed in a TELRIC study, and I would
- suggest that -- and I don't know Mr. Meier's background -- but I
- 25 would suggest I'm competent in my experience with doing that

- 1 activity.
- 2 Q. Okay. Just to recap, then, the digital cross-connect
- 3 capability you say the Fujitsu FACTR equipment has wouldn't have
- 4 any impact at all on copper feeder, would it?
- 5 A. No, it wouldn't, but my first point would.
- 6 Q. And it doesn't have any impact on what happens at the SAI?
- 7 A. No, it wouldn't, but again my first point would.
- 8 Q. And has no impact on the drop terminal?
- 9 A. Again, no, it wouldn't, but my first point would.
- MS. SANDERS: Your Honor, could I have the last answer
- 11 reread.
- 12 (Answer read back as requested.)
- 13 BY MR, HART:
- 14 Q. Now, for the cross-connect capability of the digital loop
- carrier to be used to establish a loop that's not currently
- 16 giving service, would the drop at the customer's house already
- 17 have to be attached to a distribution pair which, in turn, is
- 18 attached to a feeder pair?
- 19 A. Yes. Again, the cable would need to be connected through.
- 20 Q. One brief point about Fujitsu discounts again, if you could
- 21 turn to Page 66 of your supplemental testimony. You indicate at
- 22 the bottom that you had no indication of labor expense in the
- 23 Fujitsu contract other than project engineering's initial
- 24 installation and troubleshooting?
- 25 A. That's correct.

- 1 Q. Now, in fact, doesn't the Fujitsu contract talk about
- 2 initial installation support?
- 3 A. Could you point me to that?
- 4 Q. Well, you've got the contract attached, I believe.
- 5 A. I do, but it's a long contract, I thought you might have
- 6 it.
- 7 Q. Well, you cite it as Exhibit 9 to your testimony. In fact,
- 8 I think you say Page 4 of 6, Appendix 4.
- 9 A. I'm trying to find Appendix 4, I think that's the original
- 10 agreement.
- 11 Q. I believe it's Amendment 1.
- 12 A. Yes, I see it now. It's Page 4 of 6.
- 13 Q. And this is under a heading called "Technical Support"?
- 14 A. Yes.
- 15 Q. And it uses the term "technical installation support"?
- 16 A. Well, it says, "...technical support shall include, but not
- 17 be limited to: Project engineering, Order processing and Order
- 18 expediting. Technical installation support and troubleshooting
- shall be provided to Buyer at no charge for each initial
- 20 installation only".
- 21 Q. And technical installation and troubleshooting support
- 22 isn't actual installation labor, is it?
- 23 A. Well, I don't know exactly what they do mean by "technical
- 24 installation support", but I will point out it says "shall be
- 25 included, but not limited to".

- 1 Q. And isn't it a fact that Cincinnati Bell installs Fujitsu
- 2 equipment itself?
- 3 A. I don't know whether that is true or not. And I don't know
- 4 whether that differs with the extent to which it's installed,
- 5 when you say Fujitsu equipment, whether you mean entirety of the
- 6 FACTR system or whether you're talking about the SONET OC
- 7 architecture as well.
- 8 O. Does it make a difference?
- 9 A. Yes, many times it does. Many times the contractor -- or,
- 10 the provider will install any central office components,
- 11 especially in the SONET architecture, though they may not be
- involved in installing remote terminal sites.
- 13 Q. Do you know whether they do that at Cincinnati Bell?
- 14 A. The contract isn't specific, I don't know. It does say,
- 15 however, that they provide technical installation support,
- 16 technical support which shall include but not be limited to
- 17 these things.
- 18 Q. Which could be a phone call, if I have a problem I call and
- 19 ask how to fix it, right?
- 20 A. It could be. I doubt they would put it in this kind of
- 21 contract if that were all it meant to entail.
- 22 Q. Doesn't it go on to say in the next page that if they have
- 23 to come on site, it's \$70 an hour plus expenses?
- 24 A. Well, it says for each initial installation only, and then
- 25 it says charges for said support which are not for initial

- installations will be charged at \$70 per hour; so I don't think
- 2 it's a matter of if they come on site it's \$70 per hour, I think
- 3 it's a matter if after they have initially installed it they
- 4 have to come on site, it's \$70 per hour.
- 5 Q. Well, you think Cincinnati Bell would know a little better
- 6 than you would as to who actually installs its equipment?
- 7 A. Well, yes, I think it would. But all I'm suggesting in
- 8 this instance is that it's a common industry practice that a lot
- 9 of CO entrance -- a lot of CO electronic equipment is installed
- 10 by the vendor, and in fact, that's why we normally have an
- 11 equipped, furnished and installed cost that is generated out of
- 12 a contract as opposed to within the cost study itself.
- 13 Q. And this contract doesn't provide for equipped, furnished
- 14 and installed, does it?
- 15 A. Well, that's what I'm not sure about because it does
- 16 provide for technical support not limited to project
- 17 engineering, order processing and order expediting and technical
- 18 installation support and troubleshooting.
- 19 Q. Let me ask you to assume, as hard it may be for you, that
- 20 Cincinnati Bell actually installs this equipment. Would
- 21 Cincinnati Bell's labor rates be the appropriate place to look?
- 22 A. Well, again, I guess that would depend on whether they
- 23 could do it cheaper than the vendor could do it. You would want
- 24 to do the least cost, whichever one that is.
- 25 Q. Let's go to the last topic in your testimony, which is the

- 1 weighting of loops between biz and res.
- Would you agree with me that the TELRIC methodology calls
- 3 for considering the entire population of loops?
- 4 A. Yes, I think we started this morning talking about the fact
- 5 that the proper way to do a TELRIC study is to determine the
- 6 total output of a given element, in this case loops, and
- 7 determine what the costs associated with those are.
- 8 Q. So we ought to use the actual population of loops, not some
- 9 estimate of loops that would be unbundled?
- 10 A. We should use the total population of loops. But we have
- 11 to understand that if we just use the total population of loops
- 12 and estimate a cost for all of those on average, we have
- probably overly averaged some underlying cost characteristics.
- For example, I think we all understand that loops that are
- 15 longer generally cost more than loops that are shorter; hence,
- 16 it wouldn't be appropriate -- it would hide -- Let me say it
- 17 this way: It would mask the underlying cost of a shorter loop
- 18 if you averaged it with a longer loop. So many times, and CBT
- in this case has done it, has geographically deaveraged, and
- 20 they have done it geographically because that's many times the
- 21 cost characteristic driving the cost differences, they have
- 22 deaveraged that greater average into more finite cost-specific
- 23 categories, and I think that's an appropriate -- I think that's
- 24 an appropriate activity because it doesn't allow the
- 25 overaveraging process to mask the underlying cost in some loop

- 1 differences.
- 2 Q. Well, do you agree that even if we band loops, we should
- 3 look at the total population in the band and not assume an
- 4 artificial number that would be unbundled?
- 5 A. I think I could always agree that you shouldn't look at an
- 6 artificial number, but if there are cost characteristics that
- 7 differ, even within a band, then those cost characteristics
- 8 should be recognized as individual cost characteristics of that
- 9 loop-type.
- 10 MR. HART: Your Honor, if I could take a minute, I
- 11 think I'm finished.
- 12 THE EXAMINER: Okay. Sure.
- 13 (Discussion off the record.)
- 14 BY MR. HART:
- 15 Q. One other topic, and maybe my drawing here will help. You
- 16 talked about the loop transport combination, that there ought to
- 17 be only one FLM 150.
- 18 A. Yes.
- 19 Q. Okay. Now, am I correct that this digital loop carrier
- 20 remote terminal comes in and terminates on a FLM 150?
- 21 A. Yes.
- 22 Q. And this side is fiber, right?
- 23 A. Yes.
- 24 Q. And the other side is DS1?
- 25 A. Yes.

- 1 Q. Okay. Now, if I want to take this and put it on transport
- 2 to another central office, I take it there's another fiber ring
- 3 out here somewhere, right?
- 4 A. Yes.
- 5 Q. And this fiber ring has to terminate on a FLM 150, doesn't
- 6 it?
- 7 A. Yes.
- 8 Q. And so I've got to take this signal off of one digital loop
- 9 carrier system and send it on to another one, don't I?
- 10 A. That's correct .
- 11 Q. So I do have to involve two FLM 150s, don't I?
- 12 A. That's correct; but if you look at Mr. Mette's unbundled
- 13 loop study in combination with the picture that we drew, the
- 14 diagram that determined how we do an interoffice transport
- 15 facility, I don't know what exhibit number it is, he assumes in
- 16 the -- to get a DSO loop up to the speed necessary to get it on
- 17 this system, that you need a FLM here to get it up to the OC3
- and then another FLM to transport between central offices, so
- 19 whenever you combine those two with the FLM, it's already
- included in the loop, you come up with three, not two.
- Q. Well, in fact, this might actually go down to a DSO, it
- 22 will go, say, through a DCS, come out at a DSO and go off on to
- 23 a ring somewhere, right?
- 24 A. That's unlikely. Generally, the way this works, and the
- 25 way it is drawn in the loop study, is it comes into a FLM 150

- and then goes to a DSX1, which is a cross-connect, digital
- 2 signal cross-connect. After it gets to that DSX1, DS level, it
- 3 can be transferred to anyone in the office, unlikely you would
- 4 take it down to DSO before you took it across some sort of
- 5 central office stand, you generally stay at the DS1 level, and
- 6 this is the way it is drawn in the interoffice transport feed,
- 7 goes into the FLM 150 -- or, the FLM as a DS1, and then comes
- 8 out at whatever OC speed or band which we're concerned about, in
- 9 either case OC12 or 48 --
- 10 Q. If we're talking about a DS1 signal coming out of DS0 --
- unless other circuits are going to another switch?
- 12 A. You do that at the digital cross-connect, the DSX which is
- 13 already included.
- 14 Q. And if we're talking about DSO loop transport, we have got
- 15 to at some point provide a DSO interface.
- 16 A. Not necessarily. Because we're always --
- 17 Q. It's not a DSO interface, is it?
- 18 A. Well, let me explain. Not necessarily, because we're
- 19 talking about the ability to groom a single DS1 out of the
- 20 system and we're also talking about an integrated digital loop
- 21 carrier system, so there are going to be circumstances wherein
- 22 MCI requests 24 DS0s from this remote terminal and puts them on
- 23 to a common DS1 and then sends them on either a DS1 or DS0 level
- 24 through the interoffice network, and that is one of the
- 25 combination possibilities.

- 1 Q. And that's the loop transport combination, that pre-DS1
- 2 interface?
- 3 A. Well, it's either because we're actually receiving from the
- 4 remote terminal 24 DS0s that just happen to be grouped on to a
- 5 DS1.
- 6 O. Well, a voice grade interface is not a DS1, is it?
- 7 A. Well, what I'm suggesting to you is included in the DSO
- 8 loop transport combination is equipment associated with the
- 9 deport channel bank that would take an analog DSO and multiplex
- 10 it to a digital service 1, a DS1, and what I'm suggesting is
- 11 that step isn't necessary in many instances because whenever we
- 12 have an integrated remote terminal or integrated digital loop
- 13 carrier system we don't have to go down to the DSO level at all,
- 14 we can pull 24 DS0s out of that DSX1, take it to the FLM and we
- 15 don't need that multiplexing capability.
- 16 Q. If you do that, I do not have a voice grade interface, do
- 17 I?
- 18 A. Well, we do, we have a voice grade interface at OCO which
- is really the only thing we need.
- 20 Q. But that's not what the combination is, is it?
- 21 A. I don't know; that's what I'm saying. This is the proper
- 22 way to cost a loop transport combination.
- 23 Q. Not a voice grade loop transport combination?
- 24 A. Yes, I think it is.
- 25 Q. It's a DS1 interface combination?

- 1 A. It's a -- The interface we're concerned about is when it
- 2 arrives at other central offices, we're able to take it at DS1,
- 3 DSO, however we decide --
- 4 Q. If you order voice grade interface you connect a voice
- 5 grade interface, don't you?
- 6 A. Perhaps you do.
- 7 Q. And that requires some equipment to convert it into a voice
- 9 A. The problem is that CBT assumes whether we order a voice
- 10 grade interface or a DS1 interface, we always end up with a
- 11 voice grade coming in to the FLM 150 here. What I'm suggesting
- is we could use the integrated digital loop carrier system
- 13 capabilities, which is really all we want to do, we could have
- our DSO interface right here. It's just a separate definition
- of where the DSO is in the system.
- 16 Q. So you'd like to change the definitions in the agreement,
- 17 wouldn't you?
- 18 A. I have no intention of changing anything in the agreement,
- 19 I'm simply here to cost it out in the appropriate manner.
- MR. HART: That's all I have. Thank you.
- 21 THE EXAMINER: Mr. Reilly?
- MR. REILLY: We have nothing, your Honor.
- 23 THE EXAMINER: Five minutes.
- 24 (Recess taken.)
- THE EXAMINER: Back on the record.

- 1 Ms. Sanders, any redirect?
- MS. SANDERS: Just a couple questions, your Honor.
- 3 Thank you.
- 4
- 5 REDIRECT EXAMINATION
- 6 BY MS. SANDERS:
- 7 Q. Mr. Starkey, do you recall Mr. Hart had you read some
- 8 sections from the FCC order regarding loop conditioning and load
- 9 coil removal value. Do you remember that series of questions?
- 10 A. Yes, I do.
- 11 Q. And I believe that you agreed that CBT should recover the
- 12 costs of load coil removal, did you not, during that series of
- 13 questions?
- 14 A. Well, I did, sort of. I think you would say I did.
- 15 Q. And do you believe these costs are being recovered in the
- 16 loop studies?
- 17 A. Well, yes, and I guess that's my point, is that the FCC
- 18 order suggests that connecting carriers should be responsible
- 19 for paying for the conditioning of the loop, and one of the
- 20 instances in which the FCC suggests a loop is conditioned by is
- 21 by removing load coils.
- It's my position that the costs associated with removing
- load coil on a forward-looking long-run incremental basis are
- 24 already included in the cost studies for the monthly recurring
- 25 charges.

- 1 You sort of have to think of TELRIC -- TELRIC cuts both
- 2 ways. TELRIC is a forward-looking cost analysis such that you
- 3 look at all of the costs associated with provisioning a given
- 4 loop in a point in time. You have to distinguish between TELRIC
- 5 costs, which are long-run costs, and short-run marginal costs
- 6 which look at a particular loop and see what it would cost to
- 7 provision this loop as an unbundled network element.
- If you pick that loop as an unbundled network element, that
- 9 loop may have been in the ground for 40 years, it may have no
- 10 capital recovery left, it may have no -- it may have no
- 11 short-run marginal cost associated with providing it, but
- 12 regardless of that fact, we're still charging the monthly
- 13 recurring TELRIC rate associated with putting a brand-spanking
- 14 new loop out there.
- So load coils aren't a forward-looking technology. I think
- 16 both us and CBT agree with that because they haven't included
- 17 them in their studies, but to suggest that you must do TELRIC to
- determine the cost of a given loop and then look at a very
- 19 specific loop and do a short-run marginal cost to determine the
- 20 cost associated with removing a load coil, I think you're mixing
- 21 and matching the different methodologies to get to a certain
- 22 result which is CBT wants to recover the cost of sending one out
- 23 to recover a load coil.
- 24 That's -- That's inconsistent. We don't ask for, on a loop
- 25 that we buy that's 50 years old, we don't have to get it for a

- 1 buck because that's all the capital recovery that's left in it,
- 2 we pay the TELRIC rate. You either must do TELRIC or do
- 3 short-run marginal costs, doing a combination of both costs out
- 4 a forward-looking network, and then charges you for what you get
- 5 for the short-run marginal network, and that's inconsistent.
- 6 Q. Okay. Just one other thing along these lines. Given that
- 7 MCI's position is that the loop study already takes into account
- 8 the costs of load coil removal as you just explained, Mr. Hart
- 9 did direct your attention to Page 57 of your direct testimony
- 10 where you listed certain steps which CBT said that it would have
- 11 to take to remove load coils. Do you recall that?
- 12 A. I do.
- 13 Q. What is your recommendation as to the specific steps that
- 14 CBT put forth as to their -- what would need to be done to
- 15 remove load coils?
- 16 A. Well, I think the way I would say that is my recommendation
- 17 is that CBT should not be allowed to charge a specific
- 18 nonrecurring rate for removing from its loops things that aren't
- 19 included in the long-run incremental cost study, which would be
- 20 load coils, because of my discussion I just mentioned earlier.
- 21 So there shouldn't be a rate associated with load coil
- 22 removal; however, if someone were to disagree with me on that, I
- 23 would lump these same -- these charges in with all nonrecurring
- 24 charges which I've assumed a 50 percent reduction in, because
- again, a time and motion study is the proper way to determine

- these sort of labor-specific costs and one hasn't been done, so
- 2 it's meeting the same arguments of all the other nonrecurring
- 3 charge studies that I've recommended a 50 percent reduction.
- 4 MS. SANDERS: That's all I have.
- 5 THE EXAMINER: Mr. Hart.
- 6 MR. HART: Just a couple questions.
- 7 - -
- 8 RECROSS-EXAMINATION
- 9 BY MR. HART:
- 10 Q. Mr. Starkey, in Paragraph 382, the FCC said, "If a
- 11 competitor wants a loop conditioned to carry digital signals,
- 12 that the incumbent LEC had to do that", right?
- 13 A. Yes.
- 14 Q. And it also used the word "compensate", didn't it?
- 15 A. Yes, it did.
- 16 Q. And they didn't stop in the TELRIC order, they actually, in
- 17 the 706 order you mentioned earlier, said another two times that
- 18 the new carrier bears the cost of compensating the incumbent for
- 19 doing that conditioning, right?
- 20 A. And I agree with them, we do bear that cost.
- 21 Q. And if the FCC intended for that cost to be zero, as you
- 22 say it is, why would they bother to go through all that
- 23 machinations to say you would recover the cost?
- 24 A. First of all, I would disagree I've said the cost is zero.
- 25 What I said is the cost is included in the monthly recurring

- 1 rates associated with the TELRIC-based rate. So I'm not
- 2 quibbling with the FCC, I'm agreeing that CBT should be
- 3 compensated, and I'm suggesting the way in which they are
- 4 compensated is through the monthly recurring rate.
- 5 Q. So if MCI orders an unbundled loop voice grade and MCI
- 6 orders an unbundled loop conditioned to carry ADSL, your view is
- 7 those should be exactly the same costs?
- 8 A. Yes, because CBT has costed both of those type of loops
- 9 exactly the same way in its study.
- 10 Q. So the cost of actually doing the conditioning is zero over
- 11 and above the cost of the loop, itself?
- 12 A. Well, generally that is true. I mean, we're talking --
- 13 Conditioning is a broad term that's used for many different
- 14 things in the network. It can constitute something as simple as
- 15 unloading the pair, it can deal with, oh, say, a digital data
- 16 circuit, it can deal with fine tuning the electronics at both
- 17 the customer prem and the central office.
- 18 What I'm suggesting is CBT provisioned a loop in its TELRIC
- 19 study, at -- and I hope I'm right here -- 24-gauge nonloaded
- 20 cable such that if you got a loop that you paid for in the
- 21 TELRIC study, you would never have to unload it because it
- 22 didn't have load coils. We're already paying for that loop at a
- 23 rate for a nonloaded loop, but you're asking us through this
- 24 nonrecurring charge to not only pay for the nonloaded loop but
- 25 then to buy a loop that is loaded and pay again for a loop that

- is unloaded. That's what I'm suggesting is inappropriate.
- 2 Q. So I guess the Commission will have to decide what the FCC
- 3 meant.
- 4 MR. HART: That's all I have.
- THE EXAMINER: Mr. Reilly, do you have anything?
- 6 MR. REILLY: No, your Honor.
- 7 THE EXAMINER: Thank you, Mr. Starkey, you're excused.
- 8 (Witness was excused.)
- 9 THE EXAMINER: Any objection to the admission of MCI
- 10 Exhibits 20, 20A, 21 and 21A other than the motion to strike
- 11 certain parts made earlier by Mr. Hart?
- MR. HART: Your Honor, I would, I guess, add to my
- 13 motion to strike two other features.
- On the issue of DA listings, there is an inclusion in
- 15 the testimony of this cost study done by Southwest Bell and
- 16 there's some text that accompanies that on Pages 22 through 24.
- I don't believe there's been any foundation
- 18 established that that cost study has any application to
- 19 Cincinnati Bell, and should be stricken.
- 20 And likewise, there is a footnote on Page 21 -- I'm
- 21 sorry, it's Page 51, it's Footnote 21, in the supplemental
- 22 testimony which makes reference to some sort of a dispute MCI is
- 23 apparently having with Ameritech about special construction.
- 24 charges that are irrelevant to this case.
- 25 THE EXAMINER: Okay. I will deny the motions to

1	strike and your objections to the testimony are noted on the				
2	record.				
3	MR. HART: Thank you.				
4	THE EXAMINER: Okay. I will admit MCI Exhibits 20,				
5	20A, 21 and 21A.				
6					
7	Thereupon, MCI Exhibits Nos. 20, 20A, 21 and 21A				
8	were received into evidence.				
9	- • -				
10	THE EXAMINER: And I believe that's all we have for				
11	today. So let's go off the record.				
12					
13	(Thereupon, the hearing was adjourned at				
14	3:00 o'clock p.m. on Wednesday, March 17, 1999,				
15	to be reconvened at 10:00 o'clock a.m.				
16	on Thursday, March 18, 1999.)				
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1	CERTIFICATE				
2					
3	We, Valerie J. Grubaugh, Registered Merit Reporter,				
4	and Linda D. Riffle, Registered Diplomate Reporter and Certified				
5	Realtime Reporter, hereby certify that the foregoing is a true				
6	and correct transcript of the proceedings before the Public				
7	Utilities Commission, State of Ohio, on Wednesday, March 17,				
8	1999, as reported in stenotype by us and transcribed by us or				
9	under our supervision.				
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8	EXHIBITS	MARKED	RECEIVED
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10	Direct Testimony of Michael Starkey *** CONFIDENTIAL ***		
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