

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

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In the Matter of
Petition by Metropolitan Fiber
Systems of Florida, Inc. for
arbitration with BellSouth
Telecommunications, Inc.
concerning interconnection, rates,
terms, and conditions, pursuant to
the Federal Telecommunications
Act of 1996.

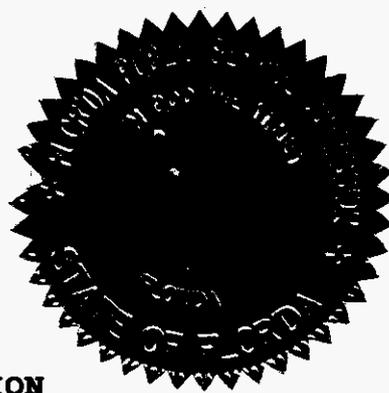
DOCKET NO. 960757-TP

Petition by AT&T Communications
of the Southern States, Inc. for
arbitration of certain terms and
conditions of a proposed agreement
with BellSouth Telecommunications
Inc. concerning interconnection
and resale under the
Telecommunications Act of 1996.

DOCKET NO. 960833-TP

Petition by MCI Telecommunications
Corporation and MCI Metro Access
Transmission Services, Inc. for
arbitration of certain terms and
conditions of a proposed agreement
with BellSouth Telecommunications,
Inc. concerning interconnection
and resale under the
Telecommunications Act of 1996.

DOCKET NO. 960846-TP



FIRST DAY - AFTERNOON SESSION

VOLUME 3

Pages 242 through 448

PROCEEDINGS: HEARING

DOCUMENT NUMBER - DATE
01801 FEB-4 88
FPC - RECORDS/REPORTING

1
2 BEFORE: CHAIRMAN JULIA L. JOHNSON
3 COMMISSIONER J. TERRY DEASON
4 COMMISSIONER SUSAN F. CLARK
5 COMMISSIONER JOE GARCIA
6 COMMISSIONER E. LEON JACOBS, JR.
7
8 DATE: Monday, January 26, 1998
9
10 TIME: Commenced at 9:30 a.m.
11
12 PLACE: Betty Easley Conference Center
13 Room 148
14 4075 Esplanade Way
15 Tallahassee, Florida
16
17 REPORTED BY: JOY KELLY, CSR, RPR
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19 Official Commission Reporters
20
21 APPEARANCES:
22
23 (As heretofore noted.)
24
25

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1 what Mr. Varner has said that relates to the manual
2 interface that the ALECs require.

3 The basis of the motion to strike was the
4 fact that in the arbitration order that Mr. Lackey is
5 looking at, the Commission specifically ruled that
6 each party shall recover its own costs of OSS.

7 WorldCom -- in addition to that, WorldCom
8 had attempted early on in this proceeding for example,
9 to include the issue of geographically deaveraged
10 loops, and that issue was stricken, or not allowed to
11 be included, because the focus of this proceeding was
12 to be exclusively those matters for which the
13 Commission had directed BellSouth to file cost
14 studies, because in the arbitration orders interim
15 rates were set for those.

16 And on the basis of Commissioner Clark's
17 determination, it was found that, for example,
18 geographically deaveraged loops, there was no
19 directive for BellSouth to file such cost studies.

20 Similarly, with respect to OSS, I believe
21 that the reason that Commissioner Clark granted the
22 motion with respect to that is because there was no
23 directive in the prior arbitration orders for
24 BellSouth to file costs or prices for OSS.

25 **CHAIRMAN JOHNSON:** And you're referring back

1 to that order in which we stated that each company
2 would bear its costs for OSS interface?

3 **MR. SELF:** That's correct.

4 **CHAIRMAN JOHNSON:** I don't have that one
5 either, but go ahead.

6 **MR. LACKEY:** Well, I'm looking at Page 87
7 out of that order, and that's all I've got is 87, so I
8 need to be a little careful here. But it says, "Based
9 on the foregoing, each party shall bear its own cost
10 of developing and implementing electronic interface
11 systems because those systems will benefit all
12 carriers."

13 **CHAIRMAN JOHNSON:** Now, I'm sure that's what
14 Mr. Varner -- because he kept making the distinction
15 between electronic and manual. I need to see that,
16 then.

17 **MR. LACKEY:** I don't have the whole order is
18 what I'm worried about, but you can see the page I've
19 got here in front of me.

20 **CHAIRMAN JOHNSON:** And maybe Staff can
21 clarify that point, too, because as Mr. Varner
22 testified, he kept making the distinction; and it
23 appeared to me that it was at least his interpretation
24 that what we were referring to was the electronic
25 interface.

1 **MS. KEATING:** Would you prefer to hear
2 Staff's opinion first?

3 **MR. LACKEY:** Not yet.

4 **CHAIRMAN JOHNSON:** I'm sorry.

5 **MS. KEATING:** Were you asking for Staff's
6 opinion now?

7 **CHAIRMAN JOHNSON:** Go ahead.

8 **MS. KEATING:** We would differ with
9 Mr. Varner's interpretation of the LCSC costs related
10 to the manual interface.

11 **CHAIRMAN CLARK:** You're going to have to
12 speak a little louder.

13 **MS. KEATING:** We do consider that part of
14 manual OSS, and we think -- we would agree that that
15 should be excluded.

16 **MR. LACKEY:** Well, if that's the Staff's
17 position, the order that you apparently now have the
18 page out of only goes to electronic systems; it
19 doesn't go to manual systems. I mean, the idea that
20 we ought to pay to have somebody sitting there to
21 answer their phone calls rather than having them -- I
22 mean, that strikes me as a little foreign.

23 **CHAIRMAN JOHNSON:** Mr. Lackey, could you
24 point me again to the -- I'm on Page 87.

25 **MR. LACKEY:** It's Page 87. It is the one,

1 two -- the third full paragraph that says "Based on
2 the foregoing, each party shall bear its own cost of
3 developing and implementing."

4 **CHAIRMAN JOHNSON:** Got you.

5 **MR. LACKEY:** It says "electronic interface
6 systems." But, again, I've got a little bit of a
7 problem, because I've only got Page 87 of this order.
8 Well, now I've got the whole thing, but I still
9 haven't read it.

10 **CHAIRMAN JOHNSON:** Staff, help me out.
11 What's the basis for your conclusion that we also
12 intended to include manual OSS -- or that that be
13 excluded?

14 **MS. KEATING:** OSS costs were not identified
15 as an issue to be determined in this proceeding.
16 We're not making any determination here as to whether
17 they should or should not be recovered at some point
18 or in some unbundled element.

19 We're just saying that that was not
20 identified as an issue to be resolved in this
21 proceeding.

22 **CHAIRMAN JOHNSON:** So if he testified it --
23 it's not relevant to anything that we're going to
24 decide today anyway is what you're saying?

25 **MS. KEATING:** We just think that that's not

1 something that should be determined here and something
2 that was identified to be determined here. It's a
3 separate element, in our opinion.

4 **CHAIRMAN CLARK:** Okay.

5 **MR. SELF:** Chairman Johnson, if I may, if
6 you read the order in its entirety --

7 **CHAIRMAN JOHNSON:** This order, the
8 arbitration order?

9 **MR. SELF:** The arbitration order, yes.
10 Thank you. If you read the arbitration order in its
11 entirety, nowhere in there does it direct BellSouth to
12 file cost studies to recover the costs, at least in
13 this proceeding, of manual or electronic interfaces.

14 And, in fact, if you look at the prehearing
15 order in this case, and if you look at the issues that
16 are identified again, nowhere along there does it
17 identify OSS, manual or electronic, as a cost for
18 which a price is to be set in this proceeding.

19 I do not dispute Commissioner Clark's ruling
20 last week with respect to the Legacy systems that are
21 included in common and shared costs, that those are
22 appropriate for consideration in this proceeding.

23 However, we now have before us the situation
24 of BellSouth attempting to recover the costs of the
25 LCSC, and that's a new cost. That's something that's

1 been developed for the ALECs, and that's not something
2 for which this proceeding has been designed to recover
3 the cost of.

4 **CHAIRMAN JOHNSON:** Okay. Now refer me back
5 to the exhibit that you're stating. It doesn't go to
6 any textual testimony, it goes to the exhibit, does it
7 not?

8 **MR. SELF:** That's correct. It's Exhibit
9 AJV-1, which has been identified as Exhibit 9. It's
10 attached to Mr. Varner's direct testimony, and you
11 should be looking at the version that says "Revised
12 Exhibit AJV-1."

13 And the problem we face is in the columns
14 under Electronic and Manual Nonrecurring Charges,
15 there's some element of that -- and I don't know
16 because I haven't analyzed that. I can't pull it out
17 for you -- but somewhere buried in there in all of
18 those nonrecurring charges is some element, some
19 amount to recover the LCSC. And I can't pull it out.
20 I don't know if they'd have to rerun the study or what
21 they'd have to do.

22 **CHAIRMAN JOHNSON:** Okay. Mr. Lackey, any
23 response to that?

24 **MR. LACKEY:** Well, the only response I have
25 is that if we look at Issue 1, it says "What are the

1 appropriate permanent and recurring and nonrecurring
2 rates for the following unbundled network elements."
3 In order to buy a loop distribution 2-wire analog
4 voice grade loop, you have to order the thing, and
5 there's the nonrecurring charge for ordering the
6 thing.

7 If you don't have a nonrecurring charge for
8 ordering it, then you can't recover the cost of
9 someone ordering it. It is clearly a proper charge
10 within the scope of this issue. It is a nonrecurring
11 charge associated with that unbundled network element,
12 which is clearly encompassed within Number 1.

13 Now, I don't think the LCSC is a part of the
14 OSS. But in any event, the thing that we were told to
15 hold our own on, unless I've missed something on
16 Page 87 of that order, were the electronic ones, which
17 we have eliminated on Page 6 of this exhibit.

18 And if you take any more of it out, all
19 you're going to do is put below cost the manual
20 handling of these things which have to be done. We
21 have to have manual handling of these orders because
22 they don't come across -- or for whatever reason, they
23 can't all be done electronically. So we're just
24 simply going to be below cost on those orders when we
25 get them.

1 Now, I don't see how anybody can argue that
2 it's outside the scope of that issue. I understand
3 the issue about the Commission telling us to hold our
4 own on the electronic interfaces, but I don't think
5 that goes to this.

6 **COMMISSIONER CLARK:** Madam Chair, if I can
7 just be clear, it seemed to me the question I was
8 asked as the prehearing officer was that "look at that
9 order and the order says we're not going to revisit
10 those things; everyone is going to bear their own cost
11 with respect to -- what does OSS stand for again?

12 **MR. LACKEY:** Operational support systems.

13 **COMMISSIONER CLARK:** And what I'm having
14 difficulty with is the notion that you separate out
15 some manual portion of that and you attribute it to
16 the UNEs. Why isn't that part of the electronic?

17 I mean, presumably you have to input or -- I
18 guess I'm having difficulty understanding why it
19 should be included in these elements. And is it
20 always included, even when you order electronically?

21 **MR. LACKEY:** I'm going to have to -- as much
22 as I like to testify, I'm going to have to let
23 Mr. Varner answer that one, because I don't know the
24 answer to that question.

25 **COMMISSIONER CLARK:** Well, I think it seems

1 to me to be somewhat fundamental, because if we were
2 separating out operator -- what is it?

3 **MS. KEATING:** Support systems.

4 **CHAIRMAN CLARK:** Support systems. It would
5 seem like whether you have to do it manually or
6 electronically, it would have been separated out. And
7 now it seems there's a debate as to whether it was --
8 that we had decided that it was part of that and to be
9 separated out. And, quite frankly, you know, that
10 should have been made clear prior to this point.

11 **CHAIRMAN JOHNSON:** Staff?

12 **MS. KEATING:** Madam Chairman, I just have a
13 little point that I think might clarify things a
14 little bit. I'm reading from the Eighth Circuit's
15 order at Page 808, and the Eighth Circuit indicated
16 there that operational support systems, operator
17 services, directory assistance, et cetera, qualify as
18 network elements that are subject to the unbundling
19 requirements of the Act.

20 OSS was not identified in this proceeding as
21 an unbundled element for which we would set permanent
22 rates. Based on this statement from the Eighth
23 Circuit, we do view them as a separate unbundled
24 network element.

25 There for a while costs may be -- we're not

1 saying whether costs should be recovered or should not
2 be recovered, but we think that determination should
3 be made in a separate proceeding.

4 **CHAIRMAN CLARK:** The only thing that I'm not
5 clear on is how will BellSouth go about separating out
6 these costs, and maybe it's just not understanding the
7 technical aspect.

8 **MS. KEATING:** Are you asking how they would
9 separate manual versus electronic; is that what you're
10 asking? Or how they would separate out costs for OSS
11 in general?

12 **CHAIRMAN JOHNSON:** No. And I don't know how
13 to ask this question. But what's the LCSC?

14 **MR. SELF:** LCSC. I can't remember at the
15 moment. Mr. Varner should know.

16 **CHAIRMAN JOHNSON:** You may have to help us
17 through this, because we're talking about the LCSC,
18 aren't we, in being able to further unbundle and take
19 out the OSS, and can this be done, and how is this
20 done?

21 **WITNESS VARNER:** The LCSC stands for local
22 carrier service center. All it is is a room that has
23 a bunch of people in it who take orders. It's not an
24 operation support system. It's a center with people
25 in it who answer the telephone and take orders.

1 That's what it stands for. It's not an electronic
2 system. It's just a bunch of people sitting at their
3 desk taking orders.

4 **CHAIRMAN JOHNSON:** Well, why does this --
5 well, how is this issue coming up, Mr. Varner, in the
6 context of is it a manual OSS? Is he saying this room
7 full of people has somehow some manual operation?

8 **WITNESS VARNER:** I don't understand how it
9 comes up, because it's not an operations support
10 system.

11 **COMMISSIONER CLARK:** Explain to me if MCI
12 wanted to order all these unbundled networks
13 electronically, would you ever use your room full of
14 people?

15 **WITNESS VARNER:** We might if the order fell
16 out, if there was an error on the order or something.
17 They do that kind of work as well.

18 **COMMISSIONER CLARK:** Okay. Madam Chairman,
19 I think it should not be included as an element. It
20 seems to me that as part of the price of OSS, if you
21 get it wrong, it's part of the ordering system, and
22 whether you do it electronically or manually, it
23 should be part of that system; and the manual part
24 shouldn't be broken out and put into the individual
25 elements.

1 Now, if we didn't do that, if it was unclear
2 to all the parties in the other proceeding, maybe we
3 have to go back and look at it. But it seems to me
4 that it's really a function of the system, the
5 ordering, and that was what was supposed to --
6 according to that order, was supposed to be borne by
7 each party.

8 **CHAIRMAN JOHNSON:** You see the room full of
9 people and the functions and their duties as a part of
10 OSS, or --

11 **COMMISSIONER CLARK:** Well, because Mr. --
12 you've indicated that you can do it?

13 **WITNESS VARNER:** Do what?

14 **COMMISSIONER CLARK:** Order. Can you order
15 an unbundled network element electronically? And if
16 you do, do you ever have to use those people in that
17 room?

18 **WITNESS VARNER:** Not to place the order, no.
19 You don't use those people if you order it
20 electronically.

21 **COMMISSIONER CLARK:** So why should it be
22 included as a cost in the unbundled network element?

23 **WITNESS VARNER:** Because that is the cost
24 when you call the on the phone and place that order.
25 That is the same cost that's included in the

1 nonrecurring cost for every other unbundled network
2 element that the Commission has already approved.

3 **COMMISSIONER CLARK:** But it isn't a cost if
4 you order it electronically; it's only a cost if you
5 order it manually.

6 **WITNESS VARNER:** That's correct, because --

7 **COMMISSIONER CLARK:** And if we're trying to
8 set network elements that apply across the board, why
9 would you include that cost?

10 **WITNESS VARNER:** That's why we proposed them
11 the way that we have. We have a proposed a
12 nonrecurring price if you order it manually, and we've
13 proposed a nonrecurring price excluding that amount if
14 you order it electronically; but we did not add in the
15 cost of the systems that you would use if you were to
16 order it electronically.

17 **COMMISSIONER CLARK:** I see. Okay.

18 **WITNESS VARNER:** That's the way we set the
19 exhibit up. You've got it if you order it manually.
20 You get a lower price if you order it electronically.
21 But the other element that you need if you order it
22 electronically is not in here.

23 **COMMISSIONER CLARK:** Well, Madam Chairman,
24 then let me --

25 **WITNESS VARNER:** That's what was excluded.

1 **COMMISSIONER CLARK:** Let me retreat from
2 what I said. It seems like what they have proposed is
3 fair, then. And, quite frankly, it was not made clear
4 to me, and I think perhaps it was not clear when we
5 did the original order that there would be that kind
6 of separation of charges, or of costs. Perhaps that's
7 correct; the separation of costs.

8 **CHAIRMAN JOHNSON:** Mr. Greer, do you have
9 anything to add?

10 **MS. KEATING:** I think he does. (Laughter)

11 **CHAIRMAN CLARK:** Counsel?

12 **MS. KEATING:** The FCC has already identified
13 preordering and ordering as OSS functions as an
14 unbundled element, and that those prices for that have
15 to be determined in a separate proceeding. The LCSC
16 performs an ordering function. Therefore --

17 **CHAIRMAN JOHNSON:** So you disagree with the
18 way that Mr. Varner just characterized -- or maybe you
19 didn't hear.

20 **MS. KEATING:** We would definitely disagree
21 with the way he characterized the LCSC. It performs a
22 manual ordering function. It's part of what it does.

23 **COMMISSIONER CLARK:** So it's your position,
24 and consistent with Mr. Self's position, that those
25 costs have to be included in the OSS? That is a

1 separate element whether you do it electronically or
2 manually.

3 **MS. KEATING:** Yes, Commissioner Clark.

4 **COMMISSIONER CLARK:** Then the question
5 becomes, was that the intent of the order. And I
6 think -- I guess it's Staff's position that it was,
7 and that's why you wrote the order the way it was.

8 **COMMISSIONER DEASON:** Well, what are
9 legitimate costs that are part of the ordering costs
10 that are part of the nonrecurring? Where do we draw
11 the line?

12 If LCSC is not part of a legitimate ordering
13 cost that should be considered part of OSS, what are
14 all these other costs? It seems to me this is a very
15 substantive issue, and you're asking the prehearing
16 officer, or the Chairman, to make a decision here,
17 make a ruling that decides a very substantive issue.
18 I don't think that's the way to proceed.

19 **MR. SELF:** Well, Commissioner Deason, the
20 basis for the joint motion was the fact that it was
21 not an issue that was ripe for resolution in this
22 proceeding. It was not designated as one, much like
23 WorldCom's request for geographic deaveraging that
24 Commissioner Clark denied inclusion as an issue in
25 this proceeding.

1 I'm not arguing that they -- at this time at
2 least -- I'm not arguing that they are not entitled to
3 recover OSS costs.

4 All I'm arguing is in the context of this
5 proceeding and what's been designated as issues for
6 this proceeding on the basis of the arbitration orders
7 that, in fact, any OSS recovery is not appropriate in
8 this proceeding other than as Commissioner Clark
9 correctly ruled, the LEGACY systems that are included
10 in common and shared.

11 **CHAIRMAN JOHNSON:** And then you define the
12 entire -- the room with people, LCSC, as part of
13 operation support systems?

14 **MR. SELF:** Sure. It's a manual system
15 that's set up as an alternative to the electronic
16 system. Quite frankly, I was expecting to get a call
17 from BellSouth on Friday saying, we have a stack of
18 paper for you to come pick up that would include
19 revisions to AJV-1 that would revise the numbers that
20 appear in the nonrecurring charges.

21 **COMMISSIONER DEASON:** You're saying there
22 should be no ordering charges, period, in any of the
23 nonrecurring charges on AJV-1, regardless of whether
24 those ordering charges are manual or electronic?

25 **MR. SELF:** That's correct.

1 **COMMISSIONER DEASON:** And the basis for that
2 is the prehearing officer's ruling on --

3 **MR. SELF:** The basis for that is the
4 arbitration decision orders which specify that --
5 well, they did not direct BellSouth to file cost
6 studies and, therefore, prices to recover those costs
7 in this particular proceeding.

8 BellSouth would be entitled, I guess,
9 tomorrow to file a petition and say, we want to
10 establish a rate for OSS cost recovery, just like
11 WorldCom would be entitled tomorrow to file a petition
12 to say, we want geographically deaveraged rates. We
13 may have to negotiate that first, but aside from that
14 issue.

15 **COMMISSIONER CLARK:** Commissioner Deason,
16 the basis for both motions that came before me were,
17 it's not within the scope of the proceeding that the
18 Commission had previously set out; and that was
19 setting permanent rates for certain unbundled network
20 elements which were enumerated in the order.

21 And then the question became -- there was a
22 challenge to WorldCom, and I don't know who else
23 suggested bringing up the issue of deaveraged rates,
24 and then there was a challenge to BellSouth's bringing
25 up the issue of OSS.

1 Those were not within those items that the
2 Commission requested them, BellSouth, to file cost
3 studies for which we would set permanent rates. That
4 was the reason for excluding them.

5 Now, this distinction did not get
6 highlighted, shall we say.

7 **COMMISSIONER JACOBS:** It sounds like it has
8 not been determined that the LCSC costs for purposes
9 of our deliberations are a distinctive UNE. You cited
10 the Eighth Circuit order. Is that our official
11 position? Or has that been determined?

12 **MS. KEATING:** The Commission hasn't made any
13 official statement as to whether it considers OSS an
14 unbundled element; has not specifically said that.
15 However, the Eighth Circuit has upheld the FCC's
16 determination that OSS is an unbundled element.

17 **COMMISSIONER JACOBS:** And so we're here now
18 on the argument whether or not the LCSC should be
19 considered by this Commission if -- and it sounds like
20 there will be another proceeding with that. If that's
21 the case, the relevant costs could be determined.

22 If it is a separate UNE -- and pardon me for
23 a moment. Part of it is my ignorance -- that then
24 there are other UNES, that we're going to ultimately
25 have to resolve those issues as well. So this will

1 come in in the scope of that proceeding for whatever
2 UNEs that are out there that we need to finalize the
3 costs for.

4 In other words, we will not resolve the
5 whole universe of unbundled network elements for this
6 arbitration, and so in the course of some other
7 proceeding we could do that and others.

8 MS. KEATING: Right.

9 COMMISSIONER JACOBS: Okay.

10 COMMISSIONER DEASON: What happens in the
11 meantime if somebody places an order? Do the costs go
12 unrecovered, or does BellSouth say, we don't have a
13 rate to process the order; until we get a rate, we're
14 not going to process your order? I mean, how does it
15 affect the real world?

16 MS. KEATING: They try to negotiate a rate,
17 and if there's a problem with that, then they come to
18 us.

19 MR. LACKEY: Well, that's okay as long as we
20 don't have to process any orders while we're
21 negotiating, I guess. But I suspect there are going
22 to be a lot of people unhappy about that if we don't
23 have a rate.

24 MR. MELSON: Commissioner Deason, to answer
25 your question, I believe from a contractual point of

1 view, in the contract the Commission has approved it
2 set out what BellSouth has to do in terms of
3 processing orders, and it sets out that there's no
4 separate or additional charge for that.

5 So while theoretically manual ordering might
6 be a UNE that might need to be arbitrated some day, I
7 think our agreement handles it somewhat differently,
8 and it's probably taken care of.

9 **COMMISSIONER JACOBS:** One other question. I
10 can't recall to state it specifically, but I think I
11 understood someone to say that most ALECs are going to
12 use electronic ordering. So to what extent would the
13 cost of manual ordering be a real factor in the short
14 term?

15 **MR. LACKEY:** I think Mr. Varner was the one
16 that was addressing that, and I think the conclusion
17 was, is that if you have electronic ordering, most of
18 it will flow through, but occasionally there will be a
19 fallout and LCSC will handle it. But the LCSC also
20 sits there, if I understand correctly, and takes
21 orders. It's not an operating system. It's a
22 place -- it's like a service rep sitting in an office
23 building somewhere taking orders, if I understood what
24 Mr. Varner said correctly.

25 **COMMISSIONER JACOBS:** My point is, though,

1 those orders are not likely to be ALEC or CLEC orders.

2 **MR. LACKEY:** Yes, they are. The LCSC was
3 set up specifically to handle CLEC/ALEC orders.

4 **COMMISSIONER JACOBS:** It was my
5 understanding that most of those were going to be
6 electronic.

7 **WITNESS VARNER:** Not if they come through --

8 **MR. LACKEY:** I don't think most of them are
9 going to be electronic, at least not now. Mr. Varner
10 will have to help. I'm sorry. I don't know the
11 answer to that.

12 **WITNESS VARNER:** If they come through the
13 LCSC, they're not electronic. They only come through
14 LCSC if they're manual.

15 **COMMISSIONER JACOBS:** I understand. Now, my
16 question, and what I'm seeking clarification on, is
17 that for the moment, most of those ALECs -- well, let
18 me narrow it even further. The parties to this
19 proceeding who is going to seek a loop are going to
20 most likely be proceeding under the electronic
21 format --

22 **WITNESS VARNER:** Yes. That's what I would
23 expect.

24 **COMMISSIONER JACOBS:** So would it not be the
25 case that they would not be using a manual service?

1 **WITNESS VARNER:** That's what I would expect.

2 **COMMISSIONER JACOBS:** And so then the cost
3 of that manual service would not be relevant in
4 processing those orders?

5 **WITNESS VARNER:** Unless they chose to use
6 it; that's right. But I would expect they would use
7 the electronic interfaces.

8 **COMMISSIONER DEASON:** Let me ask Staff a
9 question. Do you all agree with Mr. Self's
10 characterization that there should be no ordering
11 costs included in the nonrecurring, the costs shown on
12 AJV-1?

13 **MS. KEATING:** Yes.

14 **COMMISSIONER DEASON:** There should be no
15 ordering costs regardless of whether it's OSS or LS --
16 whatever that is? Whatever, there should be no
17 ordering costs included in these rates?

18 **MS. KEATING:** We would include LCSC costs,
19 yes. They should be excluded.

20 **COMMISSIONER DEASON:** They should be
21 excluded. No ordering costs, period.

22 **MS. KEATING:** Correct.

23 **COMMISSIONER DEASON:** And the reason for
24 that is that's consistent with the interpretation that
25 that was not part of this docket.

1 **MS. KEATING:** Correct.

2 **MR. LACKEY:** If I may, Madam Chairman. I'm
3 sorry, Mr. Deason, but I don't understand how that can
4 be reconciled with the issue that says "What are the
5 appropriate nonrecurring rates for the following
6 unbundled network elements?"

7 Clearly a nonrecurring rate associated with
8 that network interface device or that 2-wire is the
9 ordering charge for it. I mean, I don't see how we
10 can say that the nonrecurring charges associated with
11 these elements, which clearly include ordering the
12 elements, which is a one-time nonrecurring charge, are
13 excluded. I mean, the issue clearly contemplates that
14 those nonrecurring charges will be included in this
15 proceeding.

16 **CHAIRMAN JOHNSON:** Staff, any response to
17 that?

18 **MS. KEATING:** As I noted earlier, the
19 Eighth Circuit has already said that --

20 **CHAIRMAN JOHNSON:** How do we reconcile with
21 what he just stated how the statement does refer to
22 recovery of some nonrecurring costs? What were we
23 contemplating?

24 **COMMISSIONER DEASON:** While they're thinking
25 about that, Mr. Varner, what are the nonrecurring

1 costs other than ordering that are part of your rates
2 in your exhibit?

3 **WITNESS VARNER:** Depending on the item,
4 there is provisioning costs. You know, you take the
5 order in, then you actually go through -- let's take
6 if it's a loop, for example. You determine what
7 facility it is that you have to provide. You go and
8 you actually go out in the field and you hook that
9 facility up and make sure that it works all the way
10 from the wire center into wherever they want it to be,
11 terminate the other end of the facility wherever it
12 needs to be terminated. Those kind of costs are all
13 in addition to the ordering.

14 The functions that's included in these are
15 the exact same functions that's included in all the
16 other nonrecurring charges that's applicable for all
17 the other network elements. It's the exact same
18 functions.

19 **MR. MELSON:** Chairman Johnson, if I might, I
20 don't know if I can offer a way out of this morass or
21 not, but I'm going to try.

22 I think it was very clear in the prior
23 order, and very clear in the order on the motion to
24 strike, that the separate charge that Bell had
25 proposed for recovery of costs of electronic

1 interfaces was an issue that had been dealt with by
2 the Commission and was not on the table.

3 After having heard this give and take
4 between Mr. Self and the Staff and BellSouth, I guess
5 I think the point about manual costs is probably
6 debatable.

7 I wonder would it make sense to allow the
8 exhibit to stand to the extent we can, through
9 subsequent witnesses, try to identify what portion of
10 those costs are manual ordering costs, and then to
11 leave the parties to brief the issue of the extent to
12 which this issue has already been decided or the
13 extent to which it needs to be decided in this docket;
14 because we're really getting now into some legal
15 arguments that may do better through a briefing
16 process than continuing to argue about them.

17 MCI would suggest that approach, although if
18 you choose to rule yea or nay on the other issue,
19 we'll accept that as well.

20 **CHAIRMAN JOHNSON:** I appreciate that,
21 because I was having some of the same -- I wasn't
22 going to rule right now anyway given some of the
23 uncertainties and needing to meet with both legal
24 counsel and technical Staff. But that may be a better
25 way to proceed, because that will allow you all the

1 opportunity, if necessary, in briefs to provide the
2 legal argument.

3 Now, the one suggestion that you made would
4 be that other witnesses could address the exhibit and
5 determine which portions are manual ordering costs
6 versus those that are not.

7 **MR. MELSON:** I believe Ms. Caldwell did the
8 cost studies that underlie all of these rates, and to
9 the extent, through cross-examination of her, the
10 parties could explore what portion of that is a manual
11 OSS interface, for lack of better terminology, then
12 there presumably would be a record on which the
13 Commission could either include or exclude those costs
14 at the end of the day, depending on how you resolve
15 the legal issues.

16 **COMMISSIONER CLARK:** You said this is not an
17 issue for you because of your agreement, what you
18 arbitrated in your agreement.

19 **MR. MELSON:** It is an issue for us with
20 regard to the eight elements that are on the table
21 today. To the extent that there was a suggestion
22 that -- the question of whether there could be a
23 surcharge or a separate charge for manual ordering for
24 elements for which prices have already been set, that
25 that might be thrust into limbo. I don't think we're

1 put into limbo our existing prices, because we've got
2 existing contractual provision. It is a live issue
3 for us as it relates to these eight elements.

4 **MR. LACKEY:** And that's all I mean, by the
5 way, was as it applied to these elements.

6 **CHAIRMAN JOHNSON:** I'm sorry. I didn't hear
7 you.

8 **MR. LACKEY:** I agree with Mr. Melson. I was
9 only discussing it as it applied to these nine
10 elements, not as it goes to the elements that already
11 have prices and nonrecurring prices established.

12 **CHAIRMAN JOHNSON:** Okay. Well, Mr. Self,
13 you raised this issue. I'm amenable to the suggestion
14 provided by Mr. Melson that we go ahead and allow the
15 document to stand and allow through cross-examination
16 to find out some determinations as to what is manual
17 ordering -- which costs are manual ordering costs and
18 which are not, and perhaps through briefing determine
19 what should be included and what should not.

20 **MR. SELF:** I can accept that.

21 **CHAIRMAN JOHNSON:** Okay.

22 **COMMISSIONER DEASON:** Let me ask,
23 Mr. Lackey, is there going to be a witness who can
24 specifically identify the manual ordering costs
25 included within Mr. Varner's exhibit?

1 **MR. LACKEY:** Ms. White just went and talked
2 to Ms. Caldwell, and apparently Ms. Caldwell believes
3 that she can explain what you need to know. We
4 haven't talked about it, but based on what she's
5 heard, she apparently thinks she can address the
6 issues.

7 **CHAIRMAN JOHNSON:** Okay. Very good. That's
8 how we will proceed then. Thank you Mr. Melson.

9 **MR. SELF:** Thank you, Commissioners.

10 **Q** **(By Mr. Self)** Mr. Varner, I have just a
11 few other questions on a different subject. I'd like
12 to talk about -- I just have one or two questions
13 about collocation next.

14 WorldCom's witness Mr. Porter has proposed
15 that for physical collocation the interim rates
16 negotiated by BellSouth and MFS be adopted. Do you
17 recall that testimony?

18 **A** No. I haven't read his testimony.

19 **Q** Would you know if the interim rates that
20 were in fact, negotiated between BellSouth and MFS for
21 physical collocation and approved by this Commission,
22 whether those rates were based on cost?

23 **A** I really don't remember. From what I
24 recall, those rates were the rates that were in the
25 collocation handbook at the time, and they originally

1 were based on cost, and there have been some
2 modifications to them to try to reflect some things,
3 some events that had occurred since, you know, since
4 they were originally put in. But there was no cost
5 study that was done such as what we have here to
6 underlie those rates.

7 Q Would BellSouth execute an interconnection
8 agreement under Sections 251 and 252 of the Act that
9 includes a rate that's not in compliance with the Act?

10 MR. LACKEY: I want to object to that
11 question. I think that assumes something that's not
12 necessarily accurate. If I recall correctly, the
13 pricing provisions of 252(d) only apply to arbitrated
14 agreements, and the parties are free to negotiate
15 rates that are suitable to both parties.

16 I may be wrong about that, but I believe
17 that Mr. Self is asking Mr. Varner for a legal
18 conclusion on those issues.

19 CHAIRMAN JOHNSON: Mr. Self?

20 MR. SELF: Since Mr. Varner is not an
21 attorney, I, of course, would never ask him a legal
22 question. Let me see if I can rephrase the question.

23 Q (By Mr. Self) Was the interconnection
24 agreement an amendment that includes the physical
25 collocation rates between BellSouth and WorldCom

1 negotiated with the intent of implementing sections
2 251 and 252 of the Act?

3 A Yes.

4 Q I'd now like to ask you a few questions
5 about Page 30 of your prefiled direct testimony, and
6 specifically I'd like to look at the answer on Lines 6
7 through 16, which in general is a discussion about
8 ADSL and HDSL lines.

9 A Yes.

10 Q First, on Line 12 you reference ISDN. ISDN
11 is not an issue in this proceeding, is it not?

12 A No, not the price for an ISDN loop.

13 Q Okay. I would now like to turn to the fact
14 that the testimony here on Page 30 attempts to draw a
15 distinction between longer and shorter loops, and I'd
16 like to ask you a few questions about that.

17 First, if I understand your testimony, what
18 is relevant about the distinction that you're trying
19 to make here is that there are distance limitations
20 for ADSL and HDSL which are not present for POT
21 service; is that correct?

22 A Well, that's a part of what I'm saying here.
23 It's really -- go back to the question of what are
24 some of the characteristics that cause different loop
25 types to have different costs; and what I was

1 addressing was what some of those characteristics are.

2 One of them is that you have loop length
3 limitations on ADSL and HDSL. Also, you have more
4 manual work activity on those than you do on
5 regular -- on analog loops, and also that they would
6 take heavier gauge copper.

7 All of those are characteristics of those
8 loops that make them different from a 2-wire analog
9 loop.

10 Q Okay. I'll get to the other ones in just a
11 moment.

12 So, for example, beyond 18,000 feet for
13 ADSL, ADSL service cannot be provided, correct?

14 A As I said, you have to ask Mr. Baeza. I
15 don't remember the exact numbers, the exact
16 limitations. Subject to check, I think it's 9,000 for
17 HDSL and 18,000 for ADSL.

18 Q And that's certainly what the cost studies
19 utilize, do they not?

20 A The cost studies utilize whatever the
21 limitations actually were.

22 Q Let me ask you this: As between a
23 15,000-foot loop for POTS, for a POTS line, and a
24 15,000-foot ADSL line, distance is not an issue with
25 respect to those two lines, is it not?

1 A If they're the same length, it can't be.

2 Q Okay. I'd now like to talk about the
3 distinction that you raised with respect to smaller
4 gauge copper wire versus heavier gauge copper wire.

5 When building loops today, does BellSouth
6 use different gauges of wire for copper loops, or do
7 they all -- or are they all the same gauge?

8 A It would be different depending on what the
9 technical requirements are for that kind of loop and
10 for that particular distance.

11 Q Do you know, with respect to POTS loops, do
12 they use different gauge wire?

13 A You'd have different than -- it has to be
14 different than something else.

15 Q Would one POTS line have a different gauge
16 wire than a different POTS line?

17 A It may if the two were different lengths.

18 Q Do you know for certain?

19 A I mean, if the two are -- it depends on how
20 much longer one is than the other. You can use a
21 certain gauge of wire out to, you know, a certain
22 distance. You get beyond that distance, you have to
23 increase the gauge; you get beyond it further, you
24 have to increase it more. I don't remember what the
25 limitations are, but you use heavier gauge wire the

1 longer the distance is.

2 On some of these, though, like ADSL and
3 HDSL, you have an absolute limitation beyond which the
4 equipment just won't work. The loop can't be any
5 longer than a certain distance or it just won't work.
6 The equipment won't work with it.

7 On POTS loops you don't have that. You can
8 pretty much get the POTS loop to work. You may have
9 to load it, put, you know, carry on it or something in
10 order to get it out as far as you need to get it out,
11 but you can get it out there far enough to make it
12 work.

13 Q All right. Let's talk about ADSL for a
14 moment, and just for argument's sake, let's assume
15 that there is, in fact, an 18,000-foot limitation on
16 ADSL such that we're only going to talk about ADSL
17 loops that are 18,000 feet or less; okay?

18 Isn't it true that with respect to ADSL,
19 that the copper wire loop required for this service is
20 the same as that as is required for POT service?

21 A You have to ask Mr. Baeza. I believe,
22 however, that the ADSL loop has a -- requires a
23 heavier gauge than you would use with POTS. And the
24 other thing is since it's digital, it wouldn't be a
25 loaded pair either.

1 Q Have you by chance followed any of the press
2 coverage regarding the new high speed Internet access
3 that's been touted by Intel, Microsoft, BellSouth, and
4 other carriers?

5 A A little bit. I've seen maybe three or four
6 stories on it.

7 Q Isn't it true that the biggest advantage of
8 ADSL -- and they're talking about utilizing ADSL, are
9 they not?

10 A One article did say that, that they were
11 talking about ADSL, but another article I read seemed
12 like they might have been talking about HDSL. So I'm
13 not real sure what it is they're talking about.

14 Q All right. I want to talk about the manual
15 work item that you've identified on Page 30.

16 With respect to a 100% copper loop, with
17 respect to that loop if we were going to convert it
18 from POTS service to ADSL, and assuming it was
19 18,000 feet or less, is there anything else that
20 BellSouth has to do to the copper loop itself in order
21 to make it ADSL compatible?

22 A If it was a -- previously a POTS loop?

23 Q Yes.

24 A You'd need to ask Mr. Baeza. I'm not sure
25 if it was Baeza or Landry. I think it's Baeza. But

1 it would depend on what the characteristics were of
2 the POTS loop, what all you had to do. But he can
3 give you the details of the work that would need to be
4 done.

5 MR. SELF: Okay. Thank you. That's all I
6 have.

7 CHAIRMAN JOHNSON: Staff, how much do you
8 have?

9 MS. KEATING: Five to 10 minutes, depending
10 upon the responses.

11 CHAIRMAN JOHNSON: Go ahead.

12 CROSS EXAMINATION

13 BY MS. KEATING:

14 Q Good afternoon, Mr. Varner.

15 A Good afternoon.

16 Q I'd like to refer you first to your
17 Late-filed Deposition Exhibit No. 2. I've got just a
18 few clarification questions on that. And for
19 reference purposes, that's in Staff's Exhibit AJV-3.
20 Have you got that, Mr. Varner?

21 A Yes, I have it.

22 Q I'm looking now on what's Staff's exhibit,
23 Page Number 167, and at the top of the page it says
24 "Percent Rejected Service Requests and Percent
25 Flow-through Service Requests."

1 A Is it Page 1 or 2?

2 Q It's Page 1 of two, yes.

3 A Oh, all right. I have it.

4 Q The last column in that chart is identified
5 as Adjusted Flow-through.

6 A Yes.

7 Q On the next page the last explanation of how
8 charges -- or how these numbers are calculated says
9 "Adjusted Flow-through," and it defines adjusted
10 flow-through as LESOG flow-through plus CLEC SOER
11 errors times LESOG eligibility.

12 A Divided by.

13 Q Divided by. Excuse me. Thank you for the
14 correction.

15 However, when we made that calculation, that
16 is not the number that we got in the adjusted
17 flow-through column. Could you explain why the
18 numbers, or the percentages that are identified in the
19 adjusted flow-through column are incorrect, or whether
20 the explanation of how the calculation is made is
21 incorrect?

22 A It appears to me from reading this that it's
23 the calculation that's incorrect, because the adjusted
24 flow-through is supposed to be the projected
25 flow-through if the CLEC errors are removed.

1 Oh, wait a minute. If -- no. (Pause) I
2 haven't done the calculation, but it seems to me that
3 that's what it ought to be. Looking at the numbers,
4 it should be 15443 plus 6253 over 22689.

5 Q Could I ask which line you're looking in?

6 A I'm at the bottom of Page 1.

7 Q Actually, let's start from the first line,
8 Line A.

9 A Okay. That's a designation for a company.
10 I was looking at the total line.

11 Q Okay. The percentage in the adjusted
12 flow-through column does not equal the calculation
13 that's described for it. For instance, if you add the
14 LESOG flow-through plus the SOER errors, and then
15 divide it by LESOG eligibility --

16 A It's only the CLEC SOER errors is what you
17 add, not total.

18 Q So that calculation does not apply anywhere
19 except to the total column?

20 A I'm sorry. Let me --

21 Q Let's go through this again. When you're
22 looking in Line A --

23 A A; all right.

24 Q On Page 1 of one.

25 A Yes.

1 Q If you add LESOG flow-through --

2 A 2019.

3 Q No -- yes, 2019.

4 A Yes.

5 Q And then you add it to CLEC SOER errors --

6 A 953.

7 Q Right. And then divide it by 3171, by our
8 calculations we get 93.7%.

9 A Okay. Like I say, I haven't done it, but it
10 appears to me that that should give you the 90.7
11 you've got in the last column.

12 Q So you would say that the calculation
13 described is correct?

14 A Yes. It doesn't make sense, based on what
15 it is it's trying to do.

16 Q I just have a few follow-up questions, then,
17 not referring to this exhibit.

18 In response to a line of questions that
19 counsel for AT&T asked you, you stated that
20 application fees are common with special assemblies,
21 correct?

22 A Not the application fee we have here for
23 physical collocation. We do charge a fee for a firm
24 quote for a special assembly.

25 Q Okay. Is that --

1 A Not the same number as you have here.

2 Q Okay. But that is similar to an application
3 fee?

4 A Yeah.

5 Q Is that what you're saying?

6 A Yes. It's not the same number that you have
7 here. It's usually a percentage, or something of that
8 nature, of the special assembly price.

9 Q Well, you're familiar, aren't you, with
10 contract service arrangements?

11 A Yes.

12 Q Does BellSouth charge application fees in
13 conjunction with developing the prices for CSAs?

14 A No. CSAs -- and I'm talking about CSAs
15 separate from special assemblies -- those are already
16 tariffed services. There's nothing really new to be
17 developed. All you're doing is you're pricing them
18 differently than they are in the tariff. It's a
19 special contract price.

20 Q Well, can you explain for us, then, why
21 special assembly would merit an application type fee
22 while a CSA would or would not?

23 A A special assembly is something that you're
24 developing specifically for that customer. It's not a
25 service that you're offering -- that we're offering

1 generally, so we have to determine what it takes to do
2 that, to put that service out and make it available
3 specifically for that customer. It's not a general
4 tariffed offering.

5 Contract -- service arrangements contrast
6 with the special assemblies. The services in there
7 are already tariffed services. The only thing you're
8 doing is putting them together in a separate -- in a
9 separate contract price as opposed to the tariff
10 price.

11 Q Well, do you ever conduct cost studies to
12 determine CSA prices?

13 A Well, you have -- you do them, but you
14 really do them at the time you put the tariff in,
15 because a cost study for the CSA, it's the same
16 services that are tariffed, so it's the same cost
17 study that applies for the tariffed item.

18 Q Let me ask that question one more time. Do
19 you ever conduct cost studies to determine
20 customer-specific CSA prices?

21 A If it's a -- to make sure that we're talking
22 about the same thing -- okay, special assemblies,
23 which many people call CSAs as well, those are the
24 individual customized arrangements. Yes, you have to
25 do, you know, a cost study for each specific one,

1 because it's not generally offered. Each one is going
2 to be different, so you do a cost study for those.

3 CSAs, which are just contract arrangements,
4 a contract price off the tariffed service, the only
5 cost study that you need is the one that you did for
6 the tariff in the first place. So you don't need to
7 do another cost study for those.

8 Q Just to follow up on that, don't you conduct
9 customer -- and I believe you already stated this --
10 you do conduct, to an extent, customer-specific cost
11 studies for CSA; is that correct?

12 A Yes, to the extent that they're not just,
13 you know, the price discounts off the tariff
14 offerings. If it's something other than that, we have
15 to do a cost study.

16 Q Then let me ask you this again: Then why
17 would you charge an application type fee with a
18 special assembly, whereas you would not charge such a
19 fee with a CSA?

20 A Because there's really -- the amount of work
21 that it takes to develop whether you're going to offer
22 the customer a 10% or a 20% or a 15% discount is
23 minuscule.

24 What we're trying to capture for the other
25 one is the amount of work it takes for an engineer to

1 go out and determine how much work it takes and what
2 needs to be done to put that service in. That's a
3 significant cost.

4 On the other one, all you're trying to
5 decide is what discount do I want to give the
6 customer. That's a lot less work involved in that
7 than designing a service.

8 **MS. KEATING:** Thank you, Mr. Varner. Those
9 are all the questions that Staff has.

10 **CHAIRMAN JOHNSON:** Commissioners? (No
11 response.)

12 How much redirect are you going to have?

13 **MR. LACKEY:** Just a couple.

14 **CHAIRMAN JOHNSON:** We'll try to wrap that up
15 before we take a break, then.

16 **REDIRECT EXAMINATION**

17 **BY MR. LACKEY:**

18 **Q** I just want to follow up, Mr. Varner, on the
19 question Staff just asked you about the physical
20 collocation questions.

21 **A** Yes.

22 **Q** And it also relates to something
23 Mr. Lamoureux asked you about space collocation costs.

24 Do you recall that Mr. Lamoureux suggested
25 that the nonrecurring cost for a central office would

1 be approximately \$10,000?

2 A Yes.

3 Q Are you familiar with Mr. Ellison's
4 testimony in this proceeding?

5 A Yes.

6 Q Does he have nonrecurring costs associated
7 with cage preparation and entry fiber?

8 A Yes, he does.

9 Q How much does that run for central office?

10 A About \$4,400.

11 Q So to suggest that there's no nonrecurring
12 costs associated with this preparation would not
13 reflect what Mr. Ellison is testifying about, would
14 it?

15 A No, it would not.

16 Q We may have a disagreement about the amount,
17 but not the existence of the necessity for the
18 planning, do we?

19 A No, we do not.

20 Q Mr. Melson asked you about virtual
21 collocation and the tariffed rates. Do you recall
22 that?

23 A Yes.

24 Q And he was asking you about the item on
25 Page 6 of your Exhibit H.2.8, DS-1 cross-connects. Do

1 you recall that?

2 A Yes.

3 Q And do you recall that he asked you how
4 many -- he asked you what the recurring rate was under
5 the tariff?

6 A Yes.

7 Q And that was \$7.50?

8 A Yes.

9 Q And the TSLRIC cost was \$1.16? Do you
10 recall discussing that with him?

11 A Yes, I do.

12 Q Are there other rates associated with that
13 virtual collocation that are, in fact, priced below --
14 I'm sorry -- where the tariffed rate is priced below
15 the actual cost of providing the service?

16 A Yes.

17 Q And if this Commission wanted to adjust
18 those rates, would they have to increase those rates?

19 A Yes.

20 Q Would they necessarily have to decrease the
21 tariffed rates that are above cost?

22 A No, they would not.

23 MR. LACKEY: That's all I have. Thank you,
24 Madam Chairman.

25 I'm confused about the exhibits. I thought

1 that Mr. Varner's AJV-1 was Number 10, but I'm told
2 it's Exhibit 9.

3 **CHAIRMAN JOHNSON:** I have it listed as 9.

4 **MR. LACKEY:** I'd like to move Exhibit 9.

5 And then Exhibit 11 was the list of the redactions
6 from his testimony. I'd like to move Exhibit 11.

7 **CHAIRMAN JOHNSON:** Show 9 and 11 admitted
8 without objection.

9 (Exhibit 9 received in evidence.)

10 (Exhibit 11 received in evidence.)

11 **MS. KEATING:** Staff moves Exhibit 10.

12 **CHAIRMAN JOHNSON:** Show exhibit 10 admitted
13 without objection.

14 (Exhibit 10 received in evidence.)

15 **MR. MELSON:** Chairman Johnson, were
16 Exhibits 1 through 8 admitted?

17 **CHAIRMAN JOHNSON:** No. Those are Staff
18 Exhibits 1 through 8. Mr. Pellegrini?

19 **MR. PELLEGRINI:** Yes, we would move those
20 exhibits.

21 **CHAIRMAN JOHNSON:** Show 1 through 8 admitted
22 without objection.

23 (Exhibits 1-8 received in evidence.)

24 **CHAIRMAN JOHNSON:** I think, Mr. Varner, you
25 may be excused, and we're going to take a 15-minute

1 break.

2 (Brief recess.)

3

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4 **CHAIRMAN JOHNSON:** We're going to go back on
5 the record.

6 **MS. WHITE:** BellSouth calls Daonne Caldwell
7 and William Zarakas to the stand. Ms. Caldwell and
8 Mr. Zarakas are appearing as a panel, so the
9 preliminary matters will be a little different than
10 usual.

11

- - - - -

12 **DAONNE CALDWELL AND WILLIAM ZARAKAS**
13 were called as a panel of witnesses on behalf of
14 BellSouth Telecommunications, Inc. and, having been
15 duly sworn, testified as follows:

16 **DIRECT EXAMINATION**

17 **BY MS. WHITE:**

18 **Q** Ms. Caldwell, would you please state your
19 name and address for the record?

20 **A** (Witness Caldwell) My full name is Doris
21 Daonne Caldwell. Business address is 675 West
22 Peachtree Street, Atlanta, Georgia 30375.

23 **Q** And by whom are you employed?

24 **A** BellSouth Telecommunications, Inc.

25 **Q** Mr. Zarakas, would you please state your

1 name and address for the record?

2 **A** (Witness Zarakas) My name is William
3 Zarakas. My business address is 50 Rockefeller Plaza,
4 New York, New York 10020.

5 **Q** And by whom are you employed?

6 **A** I am employed by Theodore Barry &
7 Associates.

8 **Q** Have you both previously caused to be
9 prepared and prefiled in this case direct testimony
10 consisting of 51 pages?

11 **A** (Witness Caldwell) Yes.

12 **Q** Do you have any substantive additions or
13 corrections to make that to testimony at this time?

14 **A** No.

15 **MS. WHITE:** On January the 23rd we did file
16 in a letter the parts of the testimony, Ms. Caldwell
17 and Mr. Zarakas' direct testimony and Ms. Caldwell's
18 rebuttal testimony, and exhibits that would be
19 stricken because of the operations support systems;
20 and Ms. Sims is going to hand out just a recap of what
21 we've already filed. If you'd like to make that an
22 exhibit, we can do that.

23 **CHAIRMAN JOHNSON:** I'll mark it as
24 Exhibit 12.

25

1 (Exhibit 12 marked for identification.)

2 Q (By Ms. White) If I were to ask you the
3 same questions today that are contained in your
4 prefiled direct testimony as revised, would your
5 answers to those questions be the same?

6 A Yes.

7 MS. WHITE: I'd like to have the direct
8 testimony of Ms. Caldwell and Mr. Zarakas inserted
9 into the record as if read.

10 CHAIRMAN JOHNSON: It will be so inserted
11 and as, I guess, modified.

12 MS. WHITE: As modified?

13 CHAIRMAN CLARK: As modified by Exhibit 12.

14 Q (By Ms. White) Were there any exhibits
15 associated with the direct testimony?

16 A (Witness Caldwell) Yes.

17 Q Were these exhibits prepared by you or under
18 your direction and supervision?

19 A Yes.

20 Q Are there any corrections or changes to the
21 exhibits?

22 A There were originally five exhibits, but as
23 noted on the handout, two of those exhibits are no
24 longer appropriate; what would have been listed as P-3
25 and P-5.

1 **MS. WHITE:** Madam Chairman, I'd like to have
2 Exhibits P-1, P-2, and P-4 marked for identification.

3 **CHAIRMAN JOHNSON:** It will be marked as
4 Exhibit 13. And that was P-1, P-3, and P-4?

5 **MS. WHITE:** P-1, P-2, and P-4.

6 **CHAIRMAN JOHNSON:** I'm sorry. P1, P-2, and
7 P-4.

8 (Exhibit 13 marked for identification.)

9 **Q** **(By Ms. White)** Ms. Caldwell, did you cause
10 to be prefiled in this docket rebuttal testimony
11 consisting of 12 pages?

12 **A** Yes.

13 **Q** Do you have any additions or changes to make
14 to that rebuttal testimony at this time?

15 **A** I have two changes. On Page 9, Line 18, I
16 need to replace the number "19" with "30". And on
17 Page 10, Line 18, at the end of that sentence remove
18 the words "makes this".

19 **Q** Are those the only changes?

20 **A** To the rebuttal; that is correct.

21 **Q** If I were to ask you the questions that are
22 contained in your rebuttal testimony today as
23 modified, would your answers be the same?

24 **A** Yes, they would.

25 **MS. WHITE:** I'd like to have the rebuttal

1 testimony of Ms. Caldwell inserted into the record.

2 **CHAIRMAN JOHNSON:** It will be so inserted.

3 **Q** **(By Ms. White)** Were there any exhibits
4 attached to your rebuttal testimony?

5 **A** There were no exhibits to the rebuttal.

6 **Q** Ms. Zarakas and Ms. Caldwell, have you
7 prepared a summary of your testimony?

8 **A** **(Witness Zarakas)** We have.

9 **MS. WHITE:** The summary of both of these
10 witnesses combined will be 10 minutes or under.

11 **Q** **(By Ms. White)** Would you please proceed
12 with that summary?

13 **MR. PELLEGRINI:** Excuse me, Chairman
14 Johnson. I believe, Ms. White, that Ms. Caldwell
15 needs to correct the titles to -- the state indication
16 on Pages 1274 and 1275.

17 **WITNESS CALDWELL:** Yes, sir, that is
18 correct. In P-1 of the cost studies, Page 1274 and
19 1275, they were incorrectly titled as "North
20 Carolina." They are Florida data. I just need to
21 correct the title.

22 **CHAIRMAN JOHNSON:** Where is that? What are
23 you referring to?

24 **WITNESS CALDWELL:** In P-1, which is the cost
25 study, P-1 of the direct testimony, Pages 1274 and

1 1275.

2 **CHAIRMAN JOHNSON:** Anything else?

3 **MS. WHITE:** Is that your only correction to

4 P-1?

5 **WITNESS CALDWELL:** Yes.

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1 **BELLSOUTH TELECOMMUNICATIONS, INC.**
2 **DIRECT PANEL TESTIMONY OF**
3 **WILLIAM P. ZARAKAS AND D. DAONNE CALDWELL**
4 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
5 **DOCKETS NOS. 960757-TP/960833-TP/960846-TP/960916-TP/971140-TP**
6 **NOVEMBER 13, 1997**

7
8 **Q. (TO THE PANEL) PLEASE STATE YOUR NAME, OCCUPATION**
9 **AND ADDRESS.**

10 **A. (By Mr. Zarakas)** My name is William P. Zarakas. I am a Managing Director
11 with the management consulting firm of Theodore Barry & Associates
12 (TB&A). My business address is 50 Rockefeller Plaza, Suite 1035, New York,
13 New York, 10020.

14 **(By Ms. Caldwell)** My name is D. Daonne Caldwell. I am an Acting Director
15 in the Finance Department of BellSouth Telecommunications, Inc. (hereinafter
16 referred to as "BellSouth" or "the Company"). My area of responsibility relates
17 to economic service costs. My business address is 675 W. Peachtree St., N.E.,
18 Atlanta, Georgia, 30375.

19 **Q. (TO THE PANEL) PLEASE STATE YOUR PROFESSIONAL**
20 **EXPERIENCE AND EDUCATION RELATED TO THE ISSUES IN**
21 **THIS PROCEEDING.**

22 **A. (By Mr. Zarakas)** As a Managing Director with Theodore Barry &
23 Associates, I am responsible for overseeing TB&A's work dealing with
24 strategy, policy and regulation, and I am also responsible for TB&A's work in

1 telecommunications. As such, I have overseen many of TB&A's engagements
2 (for regulatory commissions as well as regulated companies) which involve
3 management audits, analysis of markets, and emerging regulatory issues. I
4 have also been involved in several TB&A engagements for the electric utility
5 industry. Prior to joining Theodore Barry & Associates in 1988, I was
6 employed as an Economist for the New York Power Authority and as a
7 Consultant for Ebasco Business Consulting Company, where I was involved in
8 financial and economic consulting to a variety of utility clients. I hold a Master
9 of Arts Degree in economics (with honors) from New York University.

10 **(By Ms. Caldwell)** I joined South Central Bell in 1976 in the Tupelo,
11 Mississippi, Engineering Department where I was responsible for Outside Plant
12 Planning. In 1983, I transferred to BellSouth Services, Inc. in Birmingham,
13 Alabama, and was responsible for the Centralized Results System Data Base. I
14 moved to the Pricing and Economics Department in 1984 where I developed
15 methodology for service cost studies until 1986 when I accepted a rotational
16 assignment with Bell Communications Research, Inc. (Bellcore). While at
17 Bellcore, I was responsible for development and instruction of the Service Cost
18 Studies Curriculum including courses such as "Concepts of Service Cost
19 Studies", "Network Service Costs", "Nonrecurring Costs", and "Cost Studies
20 for New Technologies". In 1990, I returned to BellSouth and was appointed to
21 a position in the cost organization, which is now a part of the Finance
22 Department, with the responsibility of managing the development of cost
23 studies for transport facilities, both loop and interoffice.

1 I attended the University of Mississippi, graduating with a Master of Science
2 Degree in mathematics. I have attended numerous Bellcore courses and outside
3 seminars relating to service cost studies and economic principles.

4 **Q. (TO THE PANEL) PLEASE STATE YOUR RELEVANT EXPERIENCE**
5 **IN TESTIFYING.**

6 **A. (By Ms. Caldwell)** I have testified in each of the nine BellSouth states in the
7 local competition dockets, including arbitration dockets and/or generic cost
8 dockets.

9 **(By Mr. Zarakas)** I have testified on several evolving regulatory issues,
10 including regulatory frameworks and cost structures. I have testified before the
11 New York, Virginia, Alabama, Georgia, Louisiana and Florida Commissions.

12 **PURPOSE**

13 **Q. (TO THE PANEL) WHAT IS THE PURPOSE OF THE PANEL'S**
14 **TESTIMONY?**

15 **A. (By Mr. Zarakas)** Together, we propose to assist the Florida Public Service
16 Commission (the "Commission") in understanding the cost study methodology
17 employed by BellSouth in this proceeding and the results generated by the use
18 of that methodology. We will explain in detail how the process works both
19 conceptually and in actual practice.

20 I will describe TB&A's involvement in the development of the cost studies and
21 provide the Commission with TB&A's opinion regarding BellSouth's
22 methodology and/or guidelines, the use of models in its cost study process, as
23 well as an assessment of the reliability of cost study results. In this regard, I

1 will introduce the cost study process and explain the steps taken in the
2 development of costs, including the sources of input data and the models used
3 to derive the outputs.

4 **(By Ms. Caldwell)** The Commission's Order No. 96-1579-FOF-TP dated
5 December 31, 1996, required BellSouth to file cost studies in support of prices
6 for unbundled network elements (UNEs) for which the Commission had
7 established interim rates. BellSouth initially filed Total Service Long Run
8 Incremental Cost (TSLRIC) studies on February 14, 1997 and filed additional
9 elements on March 3, 1997 in response to the Commission's order. Since the
10 March filing, BellSouth has revised both the cost study process (with the
11 assistance of TB&A) and the inputs for these UNEs. Thus, updated TSLRIC
12 studies were conducted for the following UNEs:

- 13 • Unbundled Local Loops
 - 14 Sub-loop 2-Wire/ 4-Wire Analog Distribution
 - 15 Network Interface Device (NID)
 - 16 2-Wire Asymmetrical Digital Subscriber Line (ADSL)
 - 17 2-Wire High Bit Rate Digital Subscriber Line (HDSL)
 - 18 4-Wire High Bit Rate Digital Subscriber Line (HDSL)
 - 19 • Unbundled Ports
 - 20 4-Wire Analog Voice Grade
 - 21 Features
 - 22 • Unbundled Transport Facilities
 - 23 Dedicated DS1 (Nonrecurring, only)
 - 24 • Directory Assistance
 - 25 Directory Transport
 - 26 • Physical and Virtual Collocation
- 27
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1 The studies, including complete documentation, are filed with this testimony as
2 Exhibit P-1. Also included in Exhibit P-1 are two summaries; one summarizes
3 the Total Service Long Run Incremental Cost (TSLRIC) results and the other
4 summarizes the Total Element Long Run Incremental Cost (TELRIC) economic
5 costs. Basically, both methodologies follow the same underlying principles. In
6 fact, this Commission recognized the similarities between the two
7 methodologies. On page 24 of the Final Order on Arbitration this Commission
8 stated, "... we do not believe there is a substantial difference between the
9 TSLRIC cost of a network element and the TELRIC cost of a network
10 element." Both TSLRIC and TELRIC studies are:

- 11 • Long -run
- 12 • Forward-looking
- 13 • Reflect least-cost, efficient technologies
- 14 • Include directly attributable costs which are determined based on
15 cost causation

16 The main difference between the two methods is the inclusion of shared and
17 common costs. The TSLRIC results do not include either, while, the TELRIC
18 economic costs recognize the existence of both. Thus, the TELRIC economic
19 costs equal the TSLRIC results plus shared and common costs. The TELRIC
20 economic costs appropriately serve as the basis for the rates presented in Mr.
21 Varner's testimony since these costs identify not only the direct (TSLRIC) costs
22 but also the legitimate level of shared and common costs attributable to the
23 unbundled element. This Commission clearly recognizes that shared and
24 common costs are true costs to BellSouth. In fact, the Commission's Final

1 Arbitration Order attempted to set rates which would “provide some
2 contribution toward joint and common costs.” BellSouth’s studies present a
3 methodology which systematically attributes shared and common costs which
4 will be discussed later in this testimony.

5 Exhibit P-2 contains a description of each UNE for which a cost study is
6 provided. I will elaborate on aspects of BellSouth’s cost studies using the
7 development of the cost of providing a 2-wire unbundled analog loop to
8 illustrate various steps in BellSouth’s cost study.

9 **Q. (TO MS. CALDWELL) ARE THERE ANY OTHER COST ISSUES**
10 **WHICH MUST BE ADDRESSED?**

11 **A. (By Ms. Caldwell)** Yes. As Mr. Varner explains in his testimony, during
12 arbitration the question arose as to the cost of ordering an unbundled loop and an
13 unbundled port on the same service request. In response to this inquiry, studies
14 were conducted which determined the nonrecurring costs incurred when the
15 following elements were ordered together:

- 16 • 2-Wire Analog Loop and Port
- 17 • 2-Wire ISDN Loop and Port
- 18 • 4-Wire Analog Loop and Port
- 19 • 4-Wire DS1 and Port

20 In order to develop these costs, the cost analysts consulted with network subject
21 matter experts to verify work activities involved in provisioning these elements
22 when they are ordered together as opposed to being ordered separately. The

1 nonrecurring cost results, both for loops and ports ordered on an individual
2 basis and when they are ordered together, are included as Exhibit P-3. Mr.
3 Landry, in his testimony, discusses the work activities associated with
4 provisioning these elements when they are ordered together. Also, Mr. Varner
5 will utilize the relationship between the two sets of costs to determine an
6 appropriate discount level to be applied against the existing unbundled loop and
7 unbundled port nonrecurring rates to establish rates for an order which requests
8 both.

9 **Q. (TO MS. CALDWELL) ARE THERE ADDITIONAL STUDIES**
10 **BELLSOUTH IS PROVIDING WITH THIS TESTIMONY?**

11 A. (By Ms. Caldwell) Yes. The nonrecurring costs presented on the summaries
12 contained in Exhibit P-1 were determined based on an entirely manual process,
13 i.e. one without an electronic interface, to be consistent with the previously filed
14 unbundled elements. However, BellSouth realizes the most likely manner an
15 Alternative Local Exchange Company (ALEC) will choose to enter an order is
16 through an electronic interface. Thus, the incremental portion of the
17 nonrecurring costs attributable to manual ordering have been identified and are
18 outlined in Exhibit P-4.

19 ~~Since the orders will be entered electronically, additional costs will be incurred~~
20 ~~by BellSouth to handle these orders. Exhibit P-5 presents the costs associated~~
21 ~~with Operational Support systems (OSS). OSSs fall into two categories,~~
22 ~~Electronic Interfaces and Legacy Systems. Electronic Interfaces are new systems~~
23 ~~developed by BellSouth for the sole purposes of providing ALEC electronic pre-~~
24 ~~ordering, ordering, maintenance, and billing capability. The Electronic~~

1 Interfaces provide the ALECs access to BellSouth's Legacy Systems. Legacy
2 Systems are the systems that existed prior to local competition and are used by
3 BellSouth to perform numerous functions in the provisioning of
4 telecommunications service.

5
6 The BellSouth cost study calculates costs for both categories, Electronic Interfaces
7 and Legacy Systems. The costs associated with the Legacy Systems, reflecting
8 central processing units, software, programming labor, maintenance, etc., are
9 included in the shared and common factors discussed by Mr. Reid.

10
11 The costs for the Electronic Interfaces are not included in the shared and common
12 factors. The costs for these systems are calculated in a separate study, since they
13 are new and were developed solely for the ALECs. This study includes the
14 development expenses and three years of maintenance expense associated with the
15 new systems and program enhancements to four Legacy Systems. These expenses
16 are predominately programming labor, however some investment for computer
17 equipment and labor associated with Product Commercialization and training are
18 included.

19
20 The OSS costs are calculated for three years and then divided by the total orders
21 (demand) during that three year period to produce a cost per order.

22

23

24

1 **COST STUDY DEVELOPMENT**

2 **Q. (TO MR. ZARAKAS) PLEASE DESCRIBE TB&A'S**
3 **QUALIFICATIONS IN GENERAL, AND SPECIFICALLY IN THE AREA**
4 **OF REGULATORY ANALYSIS.**

5 **A. (By Mr. Zarakas)** TB&A is an independent general management consulting
6 firm founded in 1954, focused primarily on strategic developments in the
7 telecommunications and energy industries. TB&A's clients include
8 telecommunications and energy companies, suppliers to those industries, and
9 state and federal regulatory commissions. TB&A has performed a wide range
10 of consulting assignments relating to the regulation of the telecommunications
11 industry, conducted on behalf of telecommunications companies, as well as
12 regulatory commissions such as the New York, Alabama and Kentucky Public
13 Service Commissions.

14 **Q. (TO MR. ZARAKAS) PLEASE DESCRIBE TB&A'S INVOLVEMENT**
15 **WITH BELLSOUTH REGARDING THE DEVELOPMENT OF COST**
16 **STUDIES.**

17 **A. (By Mr. Zarakas)** TB&A was retained by BellSouth in 1996 to perform an
18 independent review of BellSouth's cost studies, to work with BellSouth to
19 improve its cost study methodology and process, if warranted, and to assist
20 BellSouth in making its cost study simpler and more easily understood.

21 Historically, BellSouth's cost studies primarily had been prepared to support
22 tariff filings or, in some cases, to establish cost parameters for various purposes.
23 These cost studies were relatively complex, and were difficult for laypersons to
24 understand. The advent of competition in the telephone industry, however,

1 brought heightened interest in determining the costs associated with the
2 components (or elements) of the telephone network. This widespread interest
3 in cost studies has also emphasized the need to simplify cost studies.

4 The challenge, however, has become one of balancing accuracy with
5 simplicity. In some cases proxy models have been proposed to simplify the
6 analysis, but these models may have not addressed the complexity of a
7 wholesale telephone network, and thus resulted in a less than accurate reflection
8 of costs.

9 BellSouth's concerns regarding the need for simpler and more understandable
10 cost studies prompted its retention of TB&A. As a result, TB&A did the
11 following:

- 12 • First, TB&A reviewed and worked with BellSouth to refine, as
13 necessary, the methodology and the processes used by BellSouth to
14 develop its cost studies.
- 15 • Second, TB&A worked with BellSouth to ensure that the cost models it
16 employed were consistent with and supportive of its overall
17 methodology.
- 18 • Third, TB&A worked with BellSouth to make its various models more
19 open and user-friendly to BellSouth cost analysts, to the Commission
20 and to others.
- 21 • Fourth, TB&A actively participated in a comprehensive review process
22 of each UNE cost study. This included a review of data inputs
23 (including materials, equipment, loadings, and factors) and models.

1 The scope of TB&A's work included the review of numerous documents
2 (including preliminary and final aspects of the cost study; accounting and cost
3 allocation procedures; cost model documentation and reviews; cost
4 methodology manuals; and regulatory filings, related testimony, and orders) and
5 interviews (including BellSouth cost analysts, product managers, engineers, and
6 planners).

7 **Q. (TO MS. CALDWELL) PLEASE DESCRIBE YOUR INVOLVEMENT**
8 **IN THE DEVELOPMENT OF THE BELLSOUTH COST STUDIES**
9 **FILED WITH THIS COMMISSION.**

10 A. (By Ms. Caldwell) I was responsible for overseeing and reviewing each study
11 to ensure that the cost study methodology was correctly applied. Throughout
12 the cost study process, I worked with the cost analysts to ensure that the
13 components of each UNE were appropriately identified and included.
14 Additionally, I was consulted on cost study methodology changes proposed for
15 this filing.

16 **OUTLINE OF TESTIMONY**

17 **Q. (TO THE PANEL) HOW IS THE PANEL'S TESTIMONY**
18 **ORGANIZED?**

19 A. (By Mr. Zarakas) Our testimony is presented in four sections.

- 20 • Section I discusses the cost study methodology used by BellSouth to
21 develop UNE-specific and Florida-specific economic costs.
- 22 • Section II provides a more detailed review of the development of
23 economic costs, involving UNE modeling and the use of BellSouth's

1 TELRIC Calculator©. This section constitutes the largest part of our
2 testimony.

3 • Section III discusses the open nature of the cost models that BellSouth
4 has developed (with TB&A's involvement) to ensure that the
5 development of economic costs are understandable and auditable.

6 • Section IV summarizes the panel's conclusions regarding BellSouth's
7 cost studies.

8 SECTION I - COST STUDY METHODOLOGY

9 **Q. (TO MS. CALDWELL) WHAT WAS THE ULTIMATE OBJECTIVE**
10 **OF BELLSOUTH'S COST STUDIES?**

11 **A. (By Ms. Caldwell)** The ultimate objective of BellSouth's cost studies was to
12 develop complete, accurate and understandable costs for each of the unbundled
13 network elements that will be presented to the Commission. Specifically,
14 BellSouth's cost studies calculated the Total Service Long Run Incremental
15 Cost (TSLRIC) of each network element. Additionally, BellSouth's cost
16 studies developed "economic costs," reflecting TSLRIC plus consideration of
17 shared and common costs.

18 **Q. (TO MR. ZARAKAS) PLEASE DESCRIBE BELLSOUTH'S COST**
19 **STUDY METHODOLOGY.**

20 **A. (By Mr. Zarakas)** Cost study methodology refers to the overall guidelines for
21 conducting the study, as well as the major supporting processes through which

1 the study is carried out. BellSouth used the following overall guidelines in its
2 cost studies:

- 3 • Costs should reflect forward-looking network architecture, engineering
4 and materials and equipment.
- 5 • Costs should be developed individually for each unbundled network
6 element.
- 7 • Costs should be based on the particular materials, equipment, and
8 installation requirements associated with provisioning a specific
9 unbundled network element, to the greatest extent possible.
- 10 • Costs should be developed based on state-specific characteristics and
11 data.
- 12 • Cost development should be auditable and understandable.

13 (By Ms. Caldwell) BellSouth also used the following assumptions regarding
14 cost of capital, depreciation and utilization in developing TSLRIC for the
15 various UNEs.

- 16 • BellSouth used an 11.25% cost of capital. BellSouth consulted with
17 financial experts who advised BellSouth that the 11.25% cost of capital
18 authorized by the FCC appropriately reflects a forward-looking risk
19 adjusted cost of capital.
- 20 • BellSouth used projected depreciation lives generally consistent with the
21 depreciation lives we use for public reporting purposes in Florida.

- 1 • BellSouth used an average utilization level for various materials and
2 equipment required in provisioning the UNEs.

3 **Q. (TO MS. CALDWELL) PLEASE CHARACTERIZE THE TYPES OF**
4 **COSTS THAT ARE DERIVED FROM BELLSOUTH'S COST STUDIES.**

5 **A. (By Ms. Caldwell)** Two types of costs are derived from BellSouth's cost
6 studies: recurring and nonrecurring. Recurring costs reflect the capital costs
7 and operating expenses associated with the investments required to provide an
8 item of plant. Capital costs consist of depreciation, cost of money and income
9 tax. Operating expenses consist of plant specific expenses (such as
10 maintenance), ad valorem taxes and gross receipts taxes.

11 Nonrecurring costs are one-time expenses associated with provisioning,
12 installing and disconnecting the unbundled network element. These costs
13 include four major categories of activity: service order processing, engineering,
14 connect and test, and technician travel time.

15 **Q. (TO MS. CALDWELL) CAN YOU GIVE AN EXAMPLE OF EACH**
16 **TYPE OF COST YOU HAVE DESCRIBED?**

17 **A. (By Ms. Caldwell)** Yes. The best example of a recurring cost is the ongoing
18 cost of the local telephone loop that runs to our homes. That loop consists of
19 materials (i.e., fiber, copper, channel banks and such things) which have to be
20 bought and installed. These items are capitalized. Therefore, each month there
21 is a carrying cost (an interest charge of sorts) for the use of that material, as well
22 as costs associated with its ongoing recovery (depreciation) and maintenance.
23 This return on the investment in the materials used to build the loop are
24 examples of recurring costs which should be captured in a monthly rate.

1 On the other hand, when a service technician has to go to a central office and
2 move a cable pair from a BellSouth main distributing frame to the facilities of
3 another local exchange company, the cost is nonrecurring and therefore should
4 be recovered in a one-time nonrecurring charge.

5 **Q. (TO MR. ZARAKAS) PLEASE DESCRIBE HOW BELLSOUTH**
6 **APPLIED THE COST STUDY GUIDELINES TO THE DEVELOPMENT**
7 **OF ITS COST STUDY.**

8 **A. (By Mr. Zarakas)** BellSouth's cost study process is composed of five steps,
9 summarized below. These steps, while generally applicable to the overall cost
10 study process, are directly applicable to the recurring costs associated with the
11 provision of UNEs. The nonrecurring costs, which Ms. Caldwell referred to
12 earlier, will be discussed later in our testimony.

- 13 • First, BellSouth identified the unbundled network elements based on
14 requests by Alternative Local Exchange Companies (ALECs) and also
15 based on requirements imposed by regulators.
- 16 • Second, BellSouth determined the forward-looking architecture,
17 engineering, and provisioning procedures required to provide the
18 functionality for each of the identified unbundled network elements
19 through the use of models, special studies and the integrated
20 involvement of necessary BellSouth personnel, such as cost analysts,
21 product managers and network engineers.
- 22 • Third, BellSouth developed the costs associated with the material and
23 equipment required to provision each UNE. This step is referred to as
24 "UNE modeling."

- 1 • Fourth, BellSouth modeled the installation of the materials and
2 equipment by ensuring that the costs associated with installation and
3 supporting structures were appropriately included.

- 4 • Fifth, BellSouth determined the economic cost of each unbundled
5 network element by converting the installed investment into its carrying
6 charges and operating expenses. Also included in this step is the
7 inclusion of shared and common costs, to calculate TELRIC economic
8 costs, and the impact of taxes.

9 An analogy may help put these steps in perspective. Specifically, the cost study
10 process is quite like building a house.

- 11 • Step One involves deciding on the type of house that you want to build.
12 That is, you must decide whether to build a colonial or a ranch-style
13 house, whether to include a basement and how many cars the garage
14 should accommodate.

- 15 • Step Two involves architects and engineers designing the house and
16 developing preliminary specifications.

- 17 • Step Three involves determining the cost of all the major items
18 necessary to construct the house, such as lumber, windows, kitchen and
19 bathroom fixtures, and a heating and air conditioning system.

- 20 • Step Four involves incorporating and accounting for the costs of labor,
21 together with what we call minor materials (such as nuts and bolts)
22 needed to actually put the house together. As any house builder can
23 attest, the cost of building the house is certainly more than the sum of

1 the major materials and equipment referred to above. In fact, minor
2 materials and the labor associated with installation in the end proves to
3 be a very significant cost.

- 4 • Step Five represents the application of the costs associated with owning
5 and maintaining the house; for example, interest on loan payments,
6 insurance, property taxes, utility bills and repairs over time.

7 **Q. (TO MR. ZARAKAS) PLEASE EXPAND ON YOUR DESCRIPTION OF**
8 **BELLSOUTH'S COST STUDY PROCESS.**

9 A. (By Mr. Zarakas) Exhibit P-6 provides a more detailed view of the "costing"
10 process (i.e., steps 3, 4 and 5) referred to above. This exhibit reflects
11 BellSouth's cost study process flow, and can be considered in two parts:

- 12 • UNE modeling, which develops the costs of materials and equipment,
13 software and labor that are required for BellSouth to provision
14 unbundled network elements. The UNE modeling effort uses models
15 and pricing calculators, which are the detailed analyses primarily
16 relating to developing the costs of the major materials and equipment.
17 For example, this includes the detailed analyses of loops and switches.
- 18 • The TELRIC Calculator©, which completes the installation of the
19 required investment (via "loadings") and then develops the recurring
20 and nonrecurring economic cost associated with a particular unbundled
21 network element (via "factors").

22 **Q. (TO THE PANEL) HOW DID BELLSOUTH DEVELOP THIS COST**
23 **STUDY PROCESS?**

1 A. **(By Ms. Caldwell)** In conducting cost studies over the years, BellSouth has
2 developed a cost study methodology and process. Because of the importance of
3 accurately assessing the costs of UNEs, and our desire to simplify the process if
4 possible, we retained Theodore Barry & Associates to review BellSouth's
5 approach to cost studies and work with us to develop a cost study methodology
6 and process that would produce accurate and understandable economic costs for
7 the various UNEs.

8 **(By Mr. Zarakas)** TB&A reviewed BellSouth's cost study methodology and
9 the way that BellSouth implemented that methodology. Several improvements
10 were added over the course of this project. Notably, BellSouth (with TB&A's
11 assistance) redesigned its cost study process, aligning the process along lines of
12 staff expertise, whereas previously a single cost analyst was responsible for all
13 aspects of a cost study.

14 Also, BellSouth (with TB&A) developed a more automated approach to the
15 cost studies, developing the TELRIC Calculator©. This assures a higher level
16 of consistency across cost models and modelers (the cost analysts).

17 Implementing the TELRIC Calculator© accomplished several goals:

- 18 • Streamlining and, when possible, automating the cost study process; that
19 is, enabling faster turn-around of cost studies.
- 20 • Ensuring greater control of the cost study process.
- 21 • Allowing all parties involved in the cost study process the opportunity
22 to audit the process and develop their own scenarios by changing inputs.

1 Even though the model has been named the TELRIC Calculator©, this doesn't
2 imply TELRIC results are the only ones which can be generated. The model is
3 flexible and based on the user's inputs, can develop TSLRIC outputs. As I
4 mentioned previously, all parties have the opportunity to develop their own
5 scenarios. As Ms. Caldwell has explained, by eliminating the shared and
6 common costs from the calculation, TSLRICs are determined using the
7 TELRIC Calculator© which is further described in Exhibit P-1, Section 2.

8 SECTION II - UNE MODELING, LOADINGS, AND FACTORS

9 A. UNE MODELING

10 Q. (TO MS. CALDWELL) BRIEFLY DESCRIBE UNE MODELING.

11 A. (By Ms. Caldwell) As we have already stated, the first step in the process of
12 determining the cost of a UNE is defining the UNE. The person or entity
13 requesting the UNE, either before approaching BellSouth or in conjunction with
14 BellSouth's engineers, must provide the specifications for the UNE. From that
15 point, the next step in the development of costs for the UNE is the identification
16 of the costs associated with: 1) materials and equipment; 2) expenses; and 3)
17 labor associated with the requirements for the UNE. To build the house
18 referred to earlier, we have to decide how much wood, how many bricks, and
19 what appliances will be required. In BellSouth's UNE modeling, the cost
20 analyst lists all of the components identified in the engineering requirements
21 and applies prices for those components based on the latest vendor prices
22 available to BellSouth (which include BellSouth vendor discounts) as
23 appropriate. Additionally, the cost analyst adjusts the material price to account

1 for the appropriate average utilization of the various components that comprise
2 the UNE.

3 **Q. (TO MR. ZARAKAS) WHAT IS MEANT BY “MODELS” IN THE**
4 **CONTEXT OF BELLSOUTH’S COST STUDY?**

5 **A. (By Mr. Zarakas)** Many of the unbundled network elements involve detailed
6 or complex aspects of BellSouth’s network. For example, the costs associated
7 with the port UNEs involve primarily switches, which are multi-faceted and
8 serve several purposes. To accurately capture these costs, the analysts used
9 specially-developed tools (or models) to develop UNE-specific and Florida-
10 specific costs.

11 In some cases, BellSouth used a simple spreadsheet approach, while more
12 sophisticated models were used for the development of other UNE costs. For
13 example, the costs for Physical and Virtual Collocation were developed using
14 spreadsheets, while the costs associated with loop, switching and transport
15 related UNEs required more advanced computer programs.

16 **Q. (TO MS. CALDWELL) PLEASE IDENTIFY THE KEY MODELS USED**
17 **BY BELLSOUTH IN ITS COST STUDY.**

18 **A. (By Ms. Caldwell)** BellSouth has been involved in cost analysis for many years
19 analyzing costs for its own internal purposes as well as for regulators. To do so
20 BellSouth has utilized a number of models, some of which are proprietary to
21 third parties, such as Bellcore. Because of some of the concerns expressed
22 during the recently completed arbitrations, and also earlier in this proceeding,
23 BellSouth has attempted (with the advice and assistance of TB&A) to review all
24 of its models for the purpose of streamlining them and making them more user

1 friendly. We have been partially successful in this endeavor. We are currently
2 using two models for this cost analysis; the Loop Model and the SCIS Model.
3 These models are more fully described as follows:

- 4 • Loop Model: This is a BellSouth-developed model which stores the
5 specific characteristics of an average loop in Florida, as well as a
6 weighted vendor price table for components used in the loop. This
7 model is used to develop the material costs for narrowband loop and
8 loop-related UNEs.
- 9 • The Switching Cost Information System (SCIS) Model. This is a
10 sophisticated model developed by Bellcore to produce switch-related
11 costs associated with ports and features.

12 The Loop Model is open and may be reviewed by anyone, subject only to the
13 requirement that vendor specific data be protected.

14 The SCIS model is proprietary. Bellcore owns the SCIS model and it has
15 commercial value to Bellcore. In fact, Bellcore has provided a witness for
16 BellSouth who will address questions concerning this model. Bellcore has
17 agreed, provided that the appropriate proprietary protections are available, to
18 make the model available for inspection. I do want to say that BellSouth did
19 attempt to avoid using the proprietary SCIS model. Unfortunately, the model,
20 which has evidently been used for more than 18 years and thus must have been
21 owned by AT&T at one point, is the best model available to perform the tasks
22 that we required.

23 **Q. (TO MS. CALDWELL) DID BELL SOUTH RELY ON ANY OTHER**
24 **MODELS OR STUDIES IN DEVELOPING ITS COSTS?**

1 A. **(By Ms. Caldwell)** Yes. BellSouth has three “price calculators,” or study
2 processors which it uses in conjunction with the basic models listed above: (1)
3 the Synchronous Optical Network (SONET) Price Calculator; (2) the Loop
4 Multiplexer Price Calculator; and (3) the Digital Loop Carrier (DLC) Price
5 Calculator. These price calculators develop the cost of specialized components
6 that are used in the provision of various UNEs. These calculators take vendor
7 prices for various items of equipment and converts the prices to a per circuit
8 level.

9 The Commission may recall references to these studies in earlier proceedings as
10 “fundamental studies.” On reflection, I am not certain that the purpose or
11 nature of these studies was made clear enough in prior proceedings. Indeed, in
12 reading over some of the transcripts, it seems that there was some suggestion
13 that these “fundamental studies” were complex, time consuming black holes
14 which might be beyond understanding.

15 Nothing could be further from the truth; however, it is true that these studies
16 contain vendor specific information and that they, therefore, contain proprietary
17 data (which the vendors do not want publicly disclosed). In concept, however,
18 these studies are very simple. They are price lists furnished by the vendor,
19 which include the discounted price (that is, the information that vendors do not
20 want publicly disclosed) and, sometimes, a “configuration” file, which the
21 vendor furnishes so that the purchaser will know how to assemble the
22 equipment.

23 **(By Mr. Zarakas)** An analogy may be helpful. Any number of us has
24 probably experienced a situation where a car we owned leaks oil. A common
25 place for such leaks, particularly in older cars, is the “valve covers.” If you like

1 to repair your own cars, you can go into a auto parts store, where an attendant
2 can review a parts list and can tell you what valve cover you need, what it will
3 cost, and what other parts (such as sealing gaskets) you will need in order to
4 install the replacement valve covers.

5 In the case of telephone equipment, BellSouth's engineers take vendor price
6 lists and configuration files and identify the particular "parts" and
7 configurations that BellSouth expects to use in its network in the future. This is
8 then put into a data base or a spreadsheet for future use, when that part (or a
9 group of parts) is needed to construct the network, or a part of the network (i.e.,
10 a UNE). When an engineer later designs a UNE - say a loop - he tells the cost
11 analyst what parts are needed, and the cost analyst can then go to the
12 appropriate "study" and pick out the cost of the various components contained
13 in the engineer's design. As I mentioned, these studies are compiled for the
14 more complex items, such as the SONET equipment, and multiplexers, but
15 prices for cables and other items necessary to build a loop are also obtained
16 from price lists maintained by the company as well.

17 **(By Ms. Caldwell)** This process may be easier to understand if a more defined
18 example is used. Suppose we want to determine the material costs associated
19 with a two-wire analog loop that will extend beyond 12,000 feet and which
20 another local exchange company wants to buy from BellSouth on an unbundled
21 basis. Based on our assumptions regarding the make-up of such a loop, we
22 know that it will be built using fiber and copper, since it extends beyond 12,000
23 feet. Using a very simple layout, we would expect that there would be a copper
24 run from the subscriber's premises to a remote terminal. At the remote terminal
25 the analog signal carried on the copper line would be multiplexed or combined

1 with other copper lines and converted into a digital signal, carried at the DS1
2 level. This electrical digital signal would then be converted into an optical
3 signal and would be transported on fiber to the central office. At the central
4 office the signal would first be converted from an optical signal to an electrical
5 digital signal, at the DS1 level, and then broken back down into an analog
6 signal in a central office terminal and terminated on the frame where it could be
7 handed off to a competing local exchange company who had purchased that
8 unbundled loop.

9 In determining the material prices for this loop, the cost analyst would have to
10 price out the copper, the fiber, the channel banks, the multiplexers, and the
11 equipment that converts the signal from an electrical to optical format and then
12 back, as well as any other equipment or materials used in constructing the loop.
13 The analyst does this by looking at the appropriate price lists to obtain the
14 prices for the elements he needs. For instance, he might utilize the Loop
15 Multiplexer Price Calculator to find the price of the multiplexer needed in this
16 loop, just as he might look at another price list to see what 26 or possibly 24
17 gauge copper cable costs per foot.

18 In short, there is no mystery about these studies. The chief problem with the
19 public disclosure of these studies revolves around the fact that vendors give
20 BellSouth discounts on equipment which may or may not be available to other
21 purchasers. Understandably, vendors do not want these discounts disclosed. In
22 fact, BellSouth's contracts with the vendors prohibit the Company from
23 disclosing their discounted prices. We have asked the vendors for permission to
24 disclose this information, subject to appropriate protective agreements, and

1 have asked this Commission to maintain the information provided to it in this
2 area as proprietary, which such pricing information clearly constitutes.

3 Once the analyst assembles all of these prices, they are used as inputs into the
4 Loop Model (remember that we are using the loop as the example here), and the
5 Loop Model provides us with the total materials and equipment, or investment,
6 stated in dollar terms, necessary to build a loop.

7 **Q. (TO MS. CALDWELL) HOW IS THE LOOP MODEL ITSELF**
8 **CONSTRUCTED?**

9 **A. (By Ms. Caldwell)** The Loop Model is fairly simple as well. In its most basic
10 terms, the Loop Model consists of a data base that contains the component parts
11 of what we have identified as a hypothetical representative loop in Florida, and
12 application software that allows the user to change the prices of the various
13 components of that representative loop. By changing the inputs to the Loop
14 Model, the user can determine the material prices that will result when this loop
15 is constructed using the user-changeable input prices.

16 **Q. (TO MS. CALDWELL) HOW DID BELL SOUTH DETERMINE WHAT**
17 **CONSTITUTED A REPRESENTATIVE LOOP?**

18 **A. (By Ms. Caldwell)** The representative loop that is included in the Loop Model
19 was developed based on a sample of residence and business loops in Florida.
20 We have provided a significant amount of detail about the development of the
21 loop sample in Mr. Ellis Smith's testimony and in the supporting papers
22 accompanying the studies, but I will provide an overview here.

1 Basically, our statistician developed a sampling process for us which we used to
2 identify two samples of loops: one consisting of residential loops and one
3 consisting of business loops. Once the sample was developed, we examined
4 each loop in the sample, and, if the loop as it then existed did not represent the
5 most forward-looking, most efficient technology, we recast the loop so that it
6 did. For instance, if a loop was 15,000 feet long, but was on copper, we recast
7 the feeder part of the loop to put it on fiber, which is the medium of choice for a
8 loop over 12,000 feet.

9 Once the samples were recast, each loop was broken into its constituent parts
10 (i.e., so much aerial cable, so much buried copper, etc.). Each kind of
11 investment was then summed for all of the loops in the sample and then divided
12 by the number of loops to get an average level of that investment. For instance,
13 the total amount of all aerial copper cable in the distribution plant would be
14 summed and then divided by the total number of loops to get the average
15 amount of aerial cable in our loops. This average of all the different parts was
16 used to “construct” our hypothetical representative loop.

17 To illustrate this further, assume that we have three loops:

- 18 • The first loop has 200 feet of buried fiber feeder and 100 feet of aerial
19 copper distribution plant.
- 20 • The second loop has 600 feet of copper feeder plant and 300 feet of
21 aerial copper distribution plant.
- 22 • The third loop has 700 feet of buried fiber feeder and 200 feet of aerial
23 copper distribution plant.

1 BellSouth's Loop Model would total each component and then develop the
2 average loop characteristics from the data. In this simple example we would
3 have 900 feet of buried fiber feeder (for an average of 300 feet of buried fiber in
4 the representative loop), 600 feet of copper feeder plant (or 200 feet of copper
5 feeder plant in the representative loop), and 600 feet of aerial copper
6 distribution plant (or 200 aerial feet of copper distribution in the representative
7 loop). My example is not intended to be precise but to illustrate what the data
8 base in the Loop Model does in order to configure the representative loop.
9 Moreover, this same data base can be used to determine the average distribution
10 portion, the average feeder portion, or the amount of materials that would be
11 required to form other kinds of loops that depend on the same basic make-up as
12 the loops sampled.

13 **Q. (TO MR. ZARAKAS) DID BELLSOUTH'S LOOP MODEL**
14 **FACILITATE THE DEVELOPMENT OF ACCURATE FORWARD-**
15 **LOOKING AND FLORIDA-SPECIFIC LOOP COSTS?**

16 **A. (By Mr. Zarakas)** Yes. BellSouth's approach to developing loop-related costs
17 included three pivotal factors that make the results forward-looking and specific
18 to Florida. First, the loop cost was based on representative residence and
19 business loops in Florida. Second, the loops were reconfigured to reflect a
20 forward-looking architecture. Third, actual vendor prices, which reflect
21 BellSouth discounts, were used.

22 **Q. (TO MS. CALDWELL) WHAT MODEL DID BELLSOUTH USE TO**
23 **DEVELOP SWITCH-RELATED COSTS?**

1 A. **(By Ms. Caldwell)** BellSouth used a model mentioned earlier, the SCIS model,
2 to develop switch-related costs. SCIS uses detailed and specific data regarding
3 switches in Florida, including: office characteristics and traffic patterns,
4 parameters of the switch being studied, and vendor information, including
5 technical descriptions and prices. With this data, SCIS develops the least
6 common denominators of cost, or the investment drivers of the switch (referred
7 to as the “cost primitives,” or “building blocks”) which are used to produce the
8 port costs.

9 BellSouth chose to use the SCIS model because it produces accurate, state-
10 specific results at the granular level required for individual UNEs. A less
11 detailed model might calculate a reasonable cost for a single “average” switch-
12 based UNE, but it would lack the data to differentiate among UNEs beyond that
13 single “average” element.

14 **Q. (TO MR. ZARAKAS) DOES BELLSOUTH’S USE OF SCIS RESULT**
15 **IN AN ACCURATE REPRESENTATION OF FORWARD-LOOKING**
16 **AND FLORIDA-SPECIFIC SWITCHING COSTS?**

17 A. **(By Mr. Zarakas)** Yes. First, SCIS produces Florida-specific costs based on
18 the deployment of efficient and forward-looking switching technology:

- 19 • SCIS inputs include location-specific, switch-related detail to ensure that
20 switches are configured to meet the specific demands of particular
21 locations across the network.
- 22 • For the purposes of these cost studies, the switch characteristics input
23 into SCIS by BellSouth reflect a forward-looking digital technology.
24 Specifically, BellSouth assumed that all switches would be either Lucent

1 (5ESS) or Nortel (DMS 100/200). The melded digital results are used as
2 a surrogate for existing analog offices.

- 3 • SCIS uses actual Florida switch locations.

4 Further, BellSouth used actual discounted switch prices as an input into SCIS.
5 Switch prices are a very important input into SCIS, and they represent the
6 single major cost component of switch-related UNEs.

7 **Q. (TO MR. ZARAKAS) HAVE ANY SPECIAL STUDIES BEEN**
8 **CONDUCTED REGARDING THE ACCURACY AND**
9 **APPROPRIATENESS OF SCIS?**

10 **A. (By Mr. Zarakas)** Yes, Arthur Andersen & Company conducted a review of
11 SCIS in 1992. This independent review was required by the FCC as part of its
12 Open Network Architecture tariff proceeding. The review involved over 4,000
13 hours of auditing and concluded that SCIS “is fundamentally sound and
14 provides reasonable estimates of switching system investment attributable to
15 service and feature usage of the switch.” The Anderson report stated:

- 16 • “The costing principles inherent in SCIS are appropriate for estimating
17 long run incremental investments attributable to switching system usage,
18 and the specific methods for implementing these principles are
19 reasonable.”
- 20 • “SCIS accurately estimates the cost of actual switching systems
21 engineered according to manufacturer engineering rules as evidenced by
22 Bellcore’s validation procedures and results.”

- 1 • “Extensive software development controls and testing are used to assure
2 SCIS models are properly implemented and installed by model users.”
- 3 • “...although SCIS is a complex model requiring considerable
4 understanding of switching systems and service costing, the model
5 documentation, training and technical support are adequate to provide
6 reasonable support for the model in use.”

7 **Q. (TO MS. CALDWELL) ARE THERE ANY SWITCH-RELATED COSTS**
8 **NOT CALCULATED BY SCIS?**

9 **A. (By Ms. Caldwell)** Yes. Right-to-Use (RTU) costs are not calculated in SCIS.
10 A RTU expense is a licensing fee that is paid to a vendor for using software,
11 either for a switch or data base. An RTU cost is calculated by first determining
12 the RTU expense from vendor contracts. Since RTU fees are vendor and
13 equipment type specific, the fees are melded by percent deployment. For
14 example the local exchange switch RTU fees are melded on the percent
15 deployment of network access lines per switch type. The RTU nonrecurring cost
16 is expressed as a recurring equivalent cost by amortizing the expense over the
17 life of the switch. This RTU calculation is performed by the cost analyst.

18 **Q. (TO MS. CALDWELL) DID BELLSOUTH USE ANY OTHER**
19 **MODELS?**

20 **A. (By Ms. Caldwell)** Not at the level of formality associated with the Loop and
21 SCIS models. In developing the material prices associated with the other
22 unbundled network elements, BellSouth’s cost analysts used customized
23 Microsoft Excel spreadsheets. In all cases, the cost analysts assumed a forward-
24 looking network architecture.

1 **B. THE TELRIC CALCULATOR©**

2 **Q. (TO MR. ZARAKAS) TO THIS POINT, YOU AND MS. CALDWELL**
3 **HAVE BEEN DESCRIBING THE PROCESS THAT IDENTIFIES THE**
4 **COST OF THE MATERIALS NECESSARY TO PROVIDE UNES.**
5 **WHAT ELSE IS THERE TO THE PROCESS?**

6 **A. (By Mr. Zarakas)** As you correctly note, to this point we have discussed the
7 vendor price lists (for the component parts of the network) and the various
8 models that produce the dollars of investment in materials that are necessary to
9 provision a UNE (based on the inputs received from vendors and from our
10 BellSouth's Network Department). What remains is to take these material
11 costs, as well as other costs and apply them to what we refer to as our TELRIC
12 Calculator©.

13 It is important, at this point, to refer to Ms. Caldwell's discussion of recurring
14 and nonrecurring costs, because these costs are treated differently from this
15 point forward in the cost study process. The recurring types of costs are
16 primarily associated with investments. These investments must be installed and
17 maintained and capital costs for these investments must be paid. This is all
18 completed by the TELRIC Calculator©. The other type of recurring cost (i.e.,
19 software and labor expenses) and nonrecurring cost (i.e., labor) do not involve
20 installation, capital costs, maintenance, or taxes and are treated accordingly by
21 BellSouth's TELRIC Calculator©.

22 The TELRIC Calculator© also applies gross receipts taxes to all types of cost.
23 In determining the TELRIC economic costs, the TELRIC Calculator© adds
24 shared and common costs to the TSLRIC results.

1 **Q. (TO MS. CALDWELL) DOES THE TELRIC CALCULATOR©**
2 **PERFORM ANY OTHER CALCULATIONS?**

3 **A. (Ms. Caldwell)** Yes, to ensure consistency and exercise control, the labor rates
4 reside in the TELRIC Calculator©, instead of having the cost analysts get the
5 current labor rates from various BellSouth sources and multiply out labor hours
6 by labor rates.

7 **Q. (TO THE PANEL) HOW DID THE TELRIC CALCULATOR© APPLY**
8 **THE VARIOUS LOADINGS AND FACTORS?**

9 **A. (By Mr. Zarakas)** Loadings and factors (other than the shared cost, common
10 cost and gross receipts factors) are applied only to investments. In the cost
11 study process these investments were recorded using the FCC's Uniform
12 System of Account and Field Reporting Code (USOA-FRC, or simply FRC)
13 accounting structure. The FRC designation is used by BellSouth and other
14 large telephone companies. For the construction associated with the various
15 unbundled network elements included in the cost study that BellSouth
16 submitted to the Florida Commission, 22 field reporting codes were available
17 for use. The FRCs may also be broken down to a "sub-FRC" level for greater
18 specificity, if needed.

19 By capturing different types of assets by FRC and also developing loadings and
20 factors on FRC-specific basis, we were able to ensure that only the relevant
21 loadings and factors were added to investments.

22
23 **1. LOADINGS**

1 **Q. (TO MR. ZARAKAS) BRIEFLY DESCRIBE THE STEPS INVOLVED**
2 **IN CONVERTING THE UNE MODELING INTO AN INSTALLED**
3 **INVESTMENT.**

4 **A. (By Mr. Zarakas)** The UNE modeling effort identifies and prices the major
5 materials and equipment necessary for BellSouth to provide a particular
6 unbundled network element, but does not represent the total cost of installation.
7 To accomplish this, further steps are required. First, BellSouth adjusted the
8 material and equipment costs to be forward-looking by applying account-
9 specific inflation factors. Then, BellSouth adjusted for the additional labor
10 and/or material that is needed to complete installation through "loadings."
11 Loadings reflect the costs associated with installation, preparation, and/or
12 supporting structures. Referring to the earlier example of constructing a house,
13 loadings would be analogous to allowing for labor and miscellaneous materials.
14 In terms of telephone plant, these loadings add the buildings and land the
15 materials will reside on, or in the case of loops, adds the poles or conduit
16 needed to support the cable.

17 **Q. (TO MR. ZARAKAS) HOW DID BELL SOUTH DEVELOP THE**
18 **LOADINGS THAT IT APPLIED TO THE UNE MODELING?**

19 **A. (By Mr. Zarakas)** BellSouth developed the loadings based on accounting data,
20 reflecting the actual mathematical relationships between the components of the
21 UNE modeling and other types of costs. In its most simple terms (and just for
22 the purpose of illustrating this point), BellSouth looked at its books and found
23 that for every dollar it spent for aerial cable, it spent Y dollars for telephone
24 poles. Using numbers for illustrative purposes, BellSouth might find that for
25 every \$1.00 of aerial cable, it spent \$2.00 for poles. Therefore, if the UNE

1 model says that \$500 in aerial cable is needed, the “loading” would provide
2 \$1,000 for poles.

3 In doing this, BellSouth has taken a very detailed approach to loadings,
4 developing many specific types of loadings to ensure that only the appropriate
5 types of loadings are included in the cost study. In all, BellSouth developed
6 eight loadings that can be divided into two primary groupings: “In-Plant
7 Loadings” and “Supporting Structure Loadings.”

8 **Q. (TO MS. CALDWELL) PLEASE DISCUSS IN-PLANT LOADINGS.**

9 **A. (By Ms. Caldwell)** In-Plant Loadings are developed by FRC and fall into four
10 categories:

11 1) The Material Loading adjusts the outside plant material price for outside
12 plant engineering labor, installation labor, sales tax, and miscellaneous items of
13 plant such as small amounts of wire, nuts, bolts, etc. If any vendor labor is
14 involved, the material loading also adjusts for that investment.

15 Let me use a buried cable for an example. The material price of the cable is a
16 small part of the total investment. The material loading adjusts that material
17 price for the following: the labor of the outside plant engineer who designs the
18 buried cable section which is to be placed (cable size location, length, etc.), the
19 contract construction placing crew which buries the cable, and the splicing crew
20 which splices the cable. The material loading also adjusts for the investment for
21 additional items of plant which are required such as splice casings, buried cable
22 markers, and terminals.

1 Let me relate this to the house example. The material loading for the lumber in
2 the house would adjust the lumber material price for the labor of the architect,
3 the labor of the construction crew, and small items such as nails.

4 2) The TELCO Loading is developed specifically for central office switch
5 accounts. This loading adjusts the switch material price to account for
6 BellSouth engineering labor, BellSouth installation labor, sales tax, and
7 miscellaneous items of plant, such as nuts and bolts. The cost process uses
8 SCIS to model the switch-related UNEs and the output of SCIS includes not
9 only the material price but also the vendor engineering and installation labor.

10 3) The Plug-in Loading is developed specifically for the plug-in circuit
11 equipment. This loading adjusts the plug-in material price to account for all
12 engineering labor, all installation labor, sales tax, and miscellaneous items of
13 plant.

14 4) The Hardwire Loading is developed specifically for the hardwire (cabinets,
15 shelves, etc.) circuit equipment. This loading adjusts the hardwire material
16 price to account for all engineering labor, all installation labor, sales tax, and
17 miscellaneous items of plant.

18 **Q. (TO MS. CALDWELL) PLEASE DISCUSS SUPPORTING**
19 **STRUCTURE LOADINGS.**

20 **A. (By Ms. Caldwell)** In most cases, major items of plant require some type of
21 support. For instance, aerial cable hangs on poles, underground cable runs
22 through conduit and circuit and switch equipment resides in a central office
23 building on a plot of land. Also, circuit and switch equipment require power
24 generators and other equipment such as bays, batteries and racks. The

1 Supporting Structure Loadings calculate the investment for five support
2 structures: poles, conduit, land, buildings and supporting equipment and power.

3 The loop requires all five of these support structures. Because the average loop
4 includes aerial cable and underground cable and circuit equipment, it also
5 requires investment for poles, conduit , land, buildings, and supporting
6 equipment and power.

7 **Q. (TO MS. CALDWELL) PLEASE PROVIDE AN EXAMPLE OF HOW**
8 **FRCs ENSURE THAT LOADINGS ARE APPROPRIATELY APPLIED.**

9 **A. (By Ms. Caldwell)** The installed investment for an analog loop provides a
10 good example. Two primary components of an analog loop are the electronic
11 equipment used with fiber feeder and aerial copper cable. These are assigned to
12 FRC-257C (digital circuit-pair gain) and FRC-22C (aerial cable-metallic),
13 respectively. To ensure that the cost of poles is included in the loop installed
14 investment of the aerial cable, the pole loading was specifically applied to the
15 aerial cable investment; that is FRC-22C. It would not be applied to FRC-
16 257C.

17 **Q. (TO MS. CALDWELL) DOES BELLSOUTH USE ANY OTHER**
18 **LOADINGS TO ADJUST THE OUTPUT OF THE UNE MODELING?**

19 **A. (By Ms. Caldwell)** Yes. First, BellSouth uses an Investment Inflation Factor
20 which is used to adjust the material price for the average price changes expected
21 over the study period. The Investment Inflation Factor is developed by FRC and
22 is applied to all material prices included in the material build-up

1 Second, BellSouth uses a plug-in inventory loading that is applied only to
2 working plug-in material prices to adjust the price for the investment in
3 inventoried plug-ins. This loading reflects BellSouth's maintenance of an
4 inventory, so that service can be quickly established and so that defective plug-
5 ins can be quickly replaced.

6 For the loop, the plug-in inventory loading is applied to the working plug-in in
7 the digital loop carrier systems.

8 **Q. (TO MR. ZARAKAS) ARE THE LOADINGS USED BY BELL SOUTH IN**
9 **ITS COST STUDY AN ACCURATE REPRESENTATION OF**
10 **FORWARD-LOOKING COSTS?**

11 **A. (By Mr. Zarakas)** Yes. The loadings used by BellSouth reflect forward-
12 looking costs based on historical relationships. The loading were developed
13 based on accounting relationships between the investment or expenses needed
14 to install or support material to the total installed investment. These loadings
15 reflect fundamental aspects of installation and supporting structures which will
16 not be affected by technological or process innovation. For example, the cost of
17 installing poles and conduit will be similar in the future as it is today. By
18 applying the loadings, BellSouth has identified all of the capitalized cost
19 associated with the UNE being examined.

20 **2. FACTORS**

21 **Q. (TO MR. ZARAKAS) PLEASE DISCUSS THE USE OF FACTORS IN**
22 **THE TELRIC CALCULATOR®.**

1 A. **(By Mr. Zarakas)** After applying the loading, the TELRIC Calculator©
2 applies what are called “factors” to the capitalized investment. With the
3 exception of the Common Cost Factors, factors are applied to investments
4 identified in UNE modeling. These factors convert the investment (a total
5 number) into a recurring cost, similar to the way a mortgage converts the
6 purchase price of a house into monthly payments. Shared and common costs,
7 which are only applicable in the calculation of TELRIC economic costs, will be
8 discussed together later in our testimony. Excluding these, BellSouth used four
9 types of factors in its cost study: (1) a capital cost factor; (2) a factor that
10 addresses operations and maintenance expenses; (3) a factor that addresses ad
11 valorem and other taxes; and (4) a factor that addresses gross receipts taxes.
12 These factors are further discussed in Exhibit P-1, Section 4.

13 **Q. (TO MS. CALDWELL) PLEASE DISCUSS THE CAPITAL COST**
14 **FACTOR.**

15 A. **(By Ms. Caldwell)** The capital cost factor is composed of three parts: a
16 depreciation component; a cost of money component (i.e., the return on debt
17 and equity capital associated with an unbundled network element); and a factor
18 for income taxes associated with the equity returns. Together, these
19 components convert an asset’s investment cost into an equivalent stream of
20 equal annual or monthly payments, in a manner similar to the way a mortgage
21 converts a fixed loan amount into an equivalent stream of equal monthly
22 payments.

23 **Q. (TO MR. ZARAKAS) HOW DID BELLSOUTH DEVELOP THE**
24 **CAPITAL COST FACTOR?**

1 A. **(By Mr. Zarakas)** BellSouth used a relatively simple model called the Capital
2 Cost Calculator to develop its capital cost factor. In the past, BellSouth used a
3 more complex model (CAPCost developed by Bellcore) for such calculations.
4 For this proceeding, TB&A worked with BellSouth to develop a simpler, but
5 still realistic and accurate model to develop capital costs. The Capital Cost
6 Calculator is an understandable model, which still includes critical parameters
7 (such as expected economic life, expected salvage value, debt/equity ratios, cost
8 of debt, cost of equity, and state and federal income taxes). As noted earlier,
9 the breakdown of the calculation of this factor and the others are detailed in
10 Exhibit P-1.

11 **Q. (TO MS. CALDWELL) PLEASE DESCRIBE THE OPERATING**
12 **EXPENSE FACTOR.**

13 A. **(By Ms. Caldwell)** The operating expense factor, referred to as the “Plant-
14 specific” factor, is applied to an investment in order to capture the costs
15 associated with routine maintenance and repairs (e.g., inspection, trouble
16 prevention, repairs, and replacements) necessary to preserve the economic life
17 of the asset. Again this is explained in more detail in Exhibit P-1.

18 **Q. (TO MS. CALDWELL) PLEASE DESCRIBE THE AD VALOREM AND**
19 **OTHER TAX FACTOR.**

20 A. **(By Ms. Caldwell)** The Ad Valorem Tax factor is applied to each FRC
21 investment to take into account the property taxes levied on an investment. It is
22 based on a ratio of property taxes, capital stock taxes and other non-income,
23 non-revenue taxes to the total investment of telephone plant in service.

1 **Q. (TO MS. CALDWELL) PLEASE DESCRIBE THE GROSS RECEIPTS**
2 **TAX FACTOR THAT WAS INCLUDED IN THE TELRIC**
3 **CALCULATOR®.**

4 **A. (By Ms. Caldwell)** The Gross Receipts Tax Factor is applied to all costs to
5 account for tax levied on revenues received. In Florida this has a relatively
6 small impact on the cost, but we included this consideration to be complete.

7 **3. SHARED AND COMMON COSTS**

8 **Q. (TO MR. ZARAKAS) PLEASE DISCUSS SHARED AND COMMON**
9 **COSTS WITH RESPECT TO BELLSOUTH'S COST STUDIES.**

10 **A. (By Mr. Zarakas)** Up to this point in the testimony, we have discussed costs
11 that are directly related and clearly assignable to the provision of an unbundled
12 network element, the TSLRIC. For example, in the case of an analog loop, the
13 installed investment was developed by taking into account the major materials
14 (such as cable) and equipment, as well as loadings (such as poles) that would
15 need to be put in place to provide loop services. However, other types of costs
16 are also involved in providing telephony services.

17 These costs are more general to the business and not uniquely assignable to any
18 single UNE. Over the years, regulators (i.e., the FCC and various state
19 commissions) have recognized that these are bona fide costs of doing business
20 and have required that telephone companies document the way that these costs
21 should be allocated. These costs can be shared, when they are attributed to
22 specific UNEs, or common to all UNEs when they cannot be attributed either
23 directly or indirectly to an UNE.

1 **Q. (TO MR. ZARAKAS) HOW DID BELLSOUTH DEVELOP ITS**
2 **SHARED AND COMMON COST FACTORS?**

3 **A. (By Mr. Zarakas)** BellSouth reviewed the various types of costs involved in
4 running a wholesale business and decided to use the cost attribution philosophy
5 of BellSouth's Cost Allocation Manual (or CAM) to assign costs to specific
6 UNEs. Under this approach, all costs that were directly assignable to a
7 wholesale service or product were so assigned.

8 Other costs, however, could not be charged directly to specific accounts. For
9 these costs BellSouth first used the cost attribution guidelines included in its
10 CAM to attribute these costs to their relevant network investment account.
11 These are shared costs. When this was not possible, the wholesale costs that
12 were considered unattributable, or costs that were common to the provision of
13 wholesale network services, but which could not be assigned to any specific
14 UNE, were designated as common costs.

15 A detailed discussion of shared and common cost factors is included in Exhibit
16 P-1, Section 4. Also, Mr. Walter Reid, who is providing testimony on behalf of
17 BellSouth, provides a detailed account of BellSouth's development of shared
18 and common cost factors.

19 **(By Ms. Caldwell)** It is important to note that BellSouth has attempted to
20 directly assign as much cost as possible. Indeed, the wholesale common costs,
21 when BellSouth was through, only comprised 5.0% of its total wholesale costs.

22 **Q. (TO MR. ZARAKAS) DOES BELLSOUTH'S METHODOLOGY**
23 **DEVELOP AN ACCURATE REPRESENTATION OF SHARED AND**
24 **COMMON COSTS?**

1 A. **(By Mr. Zarakas)** Yes, BellSouth's methodology for developing shared and
2 common costs involved a structured approach to developing the shared and
3 common costs associated with a wholesale telephone network.

4 BellSouth had three options to determine shared and common costs: First, an
5 arbitrary percentage could be chosen as a proxy for unassignable costs. Second,
6 all of the unassignable costs that relate to regulated operations on BellSouth's
7 books could be accumulated and a general factor reflecting these costs could be
8 created and applied to all of the UNEs. Third, UNE-specific factors reflecting
9 the allocation of these costs could be developed.

10 BellSouth chose to pursue this last option in the testimony filed this date. This
11 option is more difficult to achieve than the former two options (and to some
12 may be less appealing than a simple approximate percentage add-on to reflect
13 shared and common costs). However, this methodology reflects years of work
14 on the part of the FCC and the state commissions and brings the greatest degree
15 of accuracy with respect to cost allocation that I am aware.

16 **4. OTHER COSTS**

17 **Q. (TO MS. CALDWELL) PLEASE COMMENT ON OTHER COSTS**
18 **WHICH ARE INCLUDED IN THE DEVELOPMENT OF ECONOMIC**
19 **COSTS.**

20 A. **(By Ms. Caldwell)** BellSouth's cost study also identifies nonrecurring costs, or
21 one-time costs that are typically associated with installing or disconnecting an
22 unbundled network element. The generic process for developing the
23 nonrecurring costs for unbundled network elements is as follows:

- 24 • Determine the cost elements to be developed.

- 1 • Define the work functions.
- 2 • Establish work flows.
- 3 • Determine work times for each work function.
- 4 • Develop directly assigned labor costs for each work function (labor
- 5 rate x work time).
- 6 • Accumulate work function costs to determine the total nonrecurring
- 7 costs for each cost element and add gross receipts tax (which
- 8 reflects TSLRIC).
- 9 • Apply the shared and common cost allocation factor (which then
- 10 reflects TELRIC economic cost).

11 Defining the work flows and gathering the work times is part of the UNE
12 modeling. Converting the work times to cost is accomplished in the TELRIC
13 Calculator©. The modeling step is of particular importance in determining the
14 nonrecurring cost when BellSouth receives an order for both an unbundled
15 loop and an unbundled port on the same service request. BellSouth had to
16 develop entirely new work flows to accommodate this situation. These new
17 procedures were then incorporated into the cost studies contained in Exhibit P-
18 3.

19 **Q. (TO MS. CALDWELL) DO THE ECONOMIC COSTS THAT WERE**
20 **DEVELOPED BY THE TELRIC CALCULATOR© REFLECT ALL OF**
21 **BELLSOUTH'S COST ASSOCIATED WITH ITS WHOLESALE**
22 **TELEPHONE OPERATIONS?**

23 **A. (By Ms. Caldwell)** No, when we reach this point, we have provided for
24 recovery of all the forward-looking costs of a wholesale company operating a
25 theoretical network. However, BellSouth, as well as new facility-based
26 entrants, will experience a mix of old, current, and emerging technologies in
27 their network over time. It is impossible, with the rate of technology advances,
28 to maintain a network comprised entirely of least-cost, forward-looking,
29 hypothetical technology. Thus, we need one more step to recover the costs of

1 BellSouth's actual network. For this, BellSouth developed a cost additive to
2 reflect the differences between the theoretical cost and the actual cost of the
3 UNE. This additive is called the Residual Recovery Requirement.

4 Residual Recovery Requirements were considered for both the local loop and
5 the port since the embedded investment for these network elements represents
6 well over seventy percent of BellSouth's embedded network investment in
7 Florida. Also, the embedded network deployed for interoffice facilities is 100%
8 fiber and corresponds to forward-looking technologies more closely than the
9 local loop and local switching port. Details and results of this analysis are in
10 Section 6 of Exhibit P-1.

11 SECTION III - OPEN TELRIC MODEL

12 **Q. (TO. MR. ZARAKAS) WHAT DO YOU MEAN BY "OPEN TELRIC**
13 **MODEL?"**

14 **A. (By Mr. Zarakas)** In the recent arbitration dockets and also earlier in this
15 proceeding, BellSouth's studies were criticized by opposing parties as being
16 difficult to follow and "closed" (i.e., a "black box"). A critical part of TB&A's
17 engagement was to facilitate the development of open (that is, a clearly
18 understandable and auditable) cost studies. To this end, TB&A worked
19 extensively with BellSouth to make the overall cost study as understandable
20 and open as possible.

21 Such an approach to cost studies is highly beneficial to BellSouth internally
22 because it allows greater examination and review of the cost study. Further,
23 such an open cost study will make review by the Florida Public Service
24 Commission easier and more productive.

1 **Q. (TO MR. ZARAKAS) WHAT IS THE PRIMARY MEANS THROUGH**
2 **WHICH BELLSOUTH HAS MADE ITS COST STUDIES OPEN FOR**
3 **REVIEW?**

4 **A. (By Mr. Zarakas)** BellSouth has used the TELRIC Calculator© as the primary
5 medium for making its cost studies open for review. Up until this point, we
6 have referenced the TELRIC Calculator© with respect to BellSouth's cost
7 study process. We have also developed a user-friendly model (which runs on a
8 personal computer). This model was developed by BellSouth with assistance
9 from TB&A, and achieves several goals.

10 First, the TELRIC Calculator© integrates UNE modeling with the loadings and
11 factors. Second, the TELRIC Calculator© presents the various calculations for
12 the UNEs in an orderly and understandable manner.

13 Finally, the TELRIC Calculator© facilitates user interaction. Data and inputs
14 (including data used in the UNE modeling, as well as loadings and factors) are
15 available for the user to change, if desired, and produce alternate "what-if"
16 scenarios. The TELRIC Calculator© is also directly linked to the UNE
17 modeling stage of each unbundled network element and, in turn, either further
18 linked to other underlying models (such as the Loop model) or is able to be
19 traced to those models. In many places, a user is able to delve deeper into the
20 underlying assumptions and data, reviewing and/or modifying the inputs to the
21 models.

22 **Q. (TO MS. CALDWELL) WHAT ASSURANCE IS THERE THAT THIS**
23 **MODEL WILL PRODUCE ACCURATE RESULTS?**

1 A. **(By Ms. Caldwell)** The design for the application of the factors and loadings in
2 the TELRIC Calculator© was developed by experienced cost analysts and
3 supervisors. This application was based on knowledge of how the factors were
4 calculated, how the material prices were developed and on sound economic
5 principles. Several test runs using existing spreadsheets which converted
6 investments to costs were compared against the TELRIC Calculator© results.
7 Additionally, the TELRIC Calculator©'s final outputs were reviewed for
8 reasonableness by the cost analysts and supervisors.

9 **Q. (TO MS. CALDWELL) ARE ANY ASPECTS OF BELLSOUTH'S**
10 **TELRIC DEVELOPMENT NOT OPEN TO USERS?**

11 A. **(By Ms. Caldwell)** Yes, and we have touched on these earlier. Two aspects of
12 the cost studies could not be made completely open. First, SCIS is a complex
13 model and a copyrighted Bellcore product and thus, is proprietary. Although
14 we considered a wholesale re-creation of a model to develop switch-related
15 costs, we concluded that SCIS reflected years of focused development and
16 provided the best reflection of Florida-specific UNE costs. Further, Bellcore
17 and BellSouth personnel have been and will continue to be available to answer
18 questions for the Commission, its staff, and parties regarding the intricacies of
19 SCIS, subject to the appropriate proprietary protections being afforded to the
20 material.

21 Second, vendor-specific prices are used in BellSouth's models. BellSouth
22 receives discounts off retail list prices which are negotiated on the basis of the
23 volumes of BellSouth's commitment, and I am told that our contracts obligate
24 us to maintain the confidentiality of those negotiated prices. I understand that

1 the vendors are concerned that disclosure of BellSouth's discounts would
2 impair negotiations between the vendors and other parties.

3 **(By Mr. Zarakas)** BellSouth has a number of steps to work around this need
4 for confidentiality. First, TB&A has spot checked several of BellSouth's
5 spreadsheets (such as the price calculator) and models (such as the Loop Model)
6 to ensure that they included accurate vendor prices. Also, to allow users to
7 view vendor prices, vendor data has been melded by the probability of using
8 various vendors. This melded data is open for review.

9 **SECTION IV - CONCLUSIONS**

10 **Q. (TO MR. ZARAKAS) PLEASE SUMMARIZE YOUR OVERALL**
11 **CONCLUSION WITH RESPECT TO BELLSOUTH'S COST STUDIES.**

12 **A. (By Mr. Zarakas)** Based on TB&A's review of and participation in
13 BellSouth's cost study process, we believe that the cost studies presented by
14 BellSouth to the Florida Public Service Commission represent reliable results
15 that are representative of the economic costs associated with providing Florida-
16 specific unbundled network elements.

17 BellSouth has followed the appropriate guidelines for developing these cost
18 studies and has made each step of its cost study process as open as possible to
19 the Commission for review.

20 **Q. (TO THE PANEL) DO THE INVESTMENT BUILD-UPS IN**
21 **BELLSOUTH'S COST STUDY REFLECT FORWARD-LOOKING**
22 **NETWORK ARCHITECTURE?**

1 A. **(By Mr. Zarakas)** Yes, a forward-looking network architecture was an
2 important part of BellSouth's cost study and was assured through at least two
3 controls. First, BellSouth took a multi-disciplinary and highly iterative
4 approach to determining the network architecture to be used in this cost study.
5 This effort involved cost analysts, product managers and network engineers. It
6 was also a focus of the cost study review process.

7 **(By Ms. Caldwell)** Additionally, the models that were used in the cost study
8 process were designed to reflect a forward-looking network (while retaining
9 appropriate Florida-specific data). Notably, the loop model assumed a forward-
10 looking loop architecture (e.g., fiber feeder was used in all loops over 12,000
11 feet in length), and SCIS was modeled using only Lucent 5ESS and Nortel
12 DMS 100/200 digital switches.

13 **Q. (TO MR. ZARAKAS) HOW WOULD YOU CHARACTERIZE**
14 **BELLSOUTH'S UNE MODELING STEP?**

15 A. **(By Mr. Zarakas)** BellSouth's UNE modeling was designed to develop UNE-
16 specific costs from the bottom-up. Further, the build-up reflected state-specific
17 characteristics to the greatest extent possible. BellSouth's cost study process
18 was both "granular" (in terms of the specificity of its models) and detailed (in
19 terms of the depth and location-specific aspects of data). Although such an
20 approach is lengthier than a less exacting model, UNE-specific and Florida-
21 specific accuracy requires more rather than less detail. The inaccuracies
22 resulting from too little detail increases as the number of UNEs increases and
23 the distinctions between UNEs become smaller and more subtle.

1 TB&A is not aware of any other methodology that has as much granularity of
2 structure coupled with as much detail of data inputs.

3 **Q. (TO MS. CALDWELL) DID BELLSOUTH PRESENT A COMPLETE**
4 **REFLECTION OF THE COSTS ASSOCIATED WITH PROVIDING AN**
5 **UNBUNDLED NETWORK ELEMENT?**

6 **A. (By Ms. Caldwell)** Yes, BellSouth's cost studies reflect the complete costs
7 associated with unbundled network elements. This was an important guideline
8 associated with BellSouth's cost studies. A less complete and less granular
9 approach to this cost study process may be easier (and therefore perhaps more
10 appealing to some), but would risk being incomplete and may result in a
11 deficient recovery of UNE-related costs.

12 In developing the installed investment, BellSouth's cost analysts, planners, and
13 engineers were asked to consider all the details associated with providing UNEs
14 (on a forward-looking basis). Subsequently, shared and common costs were
15 added to TSLRIC to produce TELRIC economic costs. Additionally, the cost
16 analysis for Florida includes a calculation to determine the costs (over and
17 above TELRIC economic costs) to BellSouth for the actual network, the
18 Residual Recovery Requirement.

19 **Q. (TO MR. ZARAKAS) CAN THE INPUTS AND RESULTS OF**
20 **BELLSOUTH'S COST STUDY BE TRACED AND UNDERSTOOD?**

21 **A. (By Mr. Zarakas)** Yes. BellSouth's cost studies are auditable and
22 understandable. Further, the cost study model is open and available to the
23 Commission to view and use to conduct "what-if" scenarios.

1 **Q. (TO MR. ZARAKAS) WHAT CONTROLS HAVE BEEN PUT IN**
2 **PLACE TO ENSURE THAT BELL SOUTH'S COST STUDY PROCESS**
3 **ULTIMATELY PRODUCES ACCURATE RESULTS?**

4 **A. (By Mr. Zarakas)** Four types of controls are incorporated into BellSouth's
5 cost study process. First, the UNE modeling process is a highly iterative
6 process, involving numerous checks along the way. Ultimately, the UNE
7 modeling was reviewed in detail by a panel of BellSouth personnel from the
8 Cost Matters department and other involved BellSouth departments. This
9 process involved examination of the logic and the data used in the UNE
10 modeling. It also involved cross-checking the many build-ups to ensure
11 consistency. TB&A actively participated in this comprehensive review process
12 for the development of the cost study filed with the Commission.

13 Second, the division of labor and responsibilities involved in the cost study
14 ensured that the appropriate expertise was focused on the various parts of the
15 cost study. UNE modeling was developed by various cost analysts who were
16 assigned responsibility for specific unbundled network elements based on areas
17 of expertise and familiarity with the tools needed to develop accurate costs.
18 The analysts employed specialized models to address the costs associated with
19 specific portions of the network. In this way, BellSouth leveraged years of
20 analyst training and expertise into the cost study process to produce economic
21 cost studies, as efficiently and effectively as possible.

22 Another group within Cost Matters was focused on the various loadings and
23 factors. This group is familiar with the relevant accounting records and reports,
24 which are the basis of loading and factor development.

1 Third, the entire cost study effort (UNE modeling and loading and factor
2 development) was subject to extensive reviews by numerous parties. Finally,
3 the TELRIC Calculator© itself ensures a level of accuracy in the mechanical
4 calculation of both TSLRIC and TELRIC and economic costs.

5 **Q. (TO THE PANEL) DOES THIS CONCLUDE YOUR TESTIMONY?**

6 **A. (By the Panel) Yes, it does.**

7

1 **BELLSOUTH TELECOMMUNICATIONS, INC.**
2 **REBUTTAL TESTIMONY OF**
3 **D. DAONNE CALDWELL**
4 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
5 **DOCKETS NOS. 960757-TP/960833-TP/960846-TP/960916-TP/971140-TP**
6 **DECEMBER 9, 1997**

7
8 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.**

9 A. My name is D. Daonne Caldwell. I am an Acting Director in the Finance
10 Department of BellSouth Telecommunications, Inc. (hereinafter referred to as
11 “BellSouth” or “the Company”). My area of responsibility relates to economic
12 service costs. My business address is 675 W. Peachtree St., N.E., Atlanta,
13 Georgia, 30375.

14 **Q. ARE YOU THE SAME D. DAONNE CALDWELL WHO FILED DIRECT**
15 **PANEL TESTIMONY IN THIS DOCKET?**

16
17 A. Yes.

18
19 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

20
21 A. The purpose of my testimony is to rebut testimony by various witnesses for
22 AT&T, MCI and WorldCom.

23

24

1 Q. **HOW IS YOUR REBUTTAL TESTIMONY STRUCTURED?**

2

3 A. My testimony is structured to respond to the main cost issues as discussed in the
4 filed testimonies. I plan to outline the errors and misrepresentations contained in
5 the arguments offered by the witnesses and to verify the validity of the
6 methodology and data used to develop BellSouth's Total Service Long Run
7 Incremental Costs (TSLRIC) and TSLRIC plus shared and common.

8

9 The testimony is organized to address the basic areas of contention:

10

11 ~~I. Operational Support Systems (OSS) Study~~

12 II. AT&T/MCI Collocation Model

13 III. AT&T/MCI Nonrecurring Model

14

15 There are two additional subjects criticized by intervenors; the cost of capital used
16 in the BellSouth studies and the economic lives used in the depreciation
17 calculations. These two items will be discussed by Dr. Billingsley and Mr.
18 Cunningham, respectively.

19

20 ~~I. Operational Support Systems Study~~

21 Q. **SEVERAL WITNESSES DISCUSS OPERATIONAL SUPPORT SYSTEMS.
22 PLEASE COMMENT.**

23

24 A. Most of the testimony carried the theme that OSS costs are recurring costs and
25 should not be recovered as nonrecurring costs. Rather than discuss cost recovery,

1 which is in Mr. Varner's testimony, let me explain how OSS costs are identified in
2 the BellSouth cost studies.

3
4 OSSs fall into two categories, Electronic Interfaces and Legacy Systems.

5 Electronic Interfaces are new systems developed by BellSouth for the sole purpose
6 of providing Alternative Local Exchange Company (ALEC) electronic pre-
7 ordering, ordering, maintenance, and billing capability. The Electronic Interfaces
8 provide the ALECs access to BellSouth's Legacy Systems. Legacy Systems are
9 the systems that existed prior to local competition and are used by BellSouth to
10 perform numerous functions in the provisioning of telecommunications services.

11
12 The BellSouth cost studies calculate costs for both categories, Electronic Interfaces
13 and Legacy Systems. The costs associated with the Legacy Systems, reflecting
14 central processing units, software, programming labor, maintenance, etc., are
15 included in the shared and common factors discussed by Mr. Reid.

16
17 The costs for the Electronic Interfaces are not included in the shared and common
18 factors. The costs for these systems are calculated in a separate study, contained in
19 the study documentation, since they are new and were developed solely for the
20 ALECs. This study includes the development expenses and three years of
21 maintenance expense associated with the new systems and program enhancements
22 to four Legacy Systems, Advanced Billing System (ABS), Application for
23 Telephone Number Load, Administration and Selection.(ATLAS),
24 Products/Services Inventory Management System (P/SIMS), and Regional Street
25 Address Guide (RSAG). The upgrades to the Legacy Systems have been made

1 ~~solely to provide ALECs access to these systems and would not have been made~~
2 ~~otherwise.~~

3
4 ~~These expenses are predominately programming labor, however some investment~~
5 ~~for computer equipment and labor associated with Product Commercialization and~~
6 ~~training are included. The OSS costs are calculated for three years and then~~
7 ~~divided by the total orders (demand) during that three year period to produce a cost~~
8 ~~per order.~~

9
10 **II. AT&T/MCI Collocation Model**

11 **Q. WOULD YOU PLEASE ELABORATE ON THE BASIC AREAS OF**
12 **DIFFERENCES BETWEEN BELLSOUTH STUDY AND THE AT&T/MCI**
13 **COLLOCATION MODEL SPONSORED BY MR. BISSELL AND MR.**
14 **KLICK?**

15
16 **A.** Yes. The main differences surround the application fee, space preparation fee, use
17 of gypsum walls, cable lengths, and the use of the R.S. Means guidelines. I will
18 address the application and space preparation fee and Ms. Redmond will address
19 the other items.

20
21 **Q. PLEASE DESCRIBE THE FUNCTIONS CONTAINED IN BELLSOUTH'S**
22 **APPLICATION FEE COST CALCULATION.**

23
24 **A.** BellSouth's Application Fee covers the cost of a service inquiry function which is
25 performed to determine if the ALEC's request for physical collocation can be met.

1 It includes marketing, project management, engineering, and administrative time
 2 associated with review, research, and planning due to the request, as well as a
 3 written response to the customer. The chart below outlines the work groups
 4 involved and their associated time requirements.

Work Group	Time (Hours)
Interexchange Network Access Coordinator	40.0
Marketing	27.5
Property & Services Management	3.5
Outside Plant Engineering	0.5
Common Systems Capacity Management	8.0
Circuit Capacity Management	8.0
Total	87.5

15 Project management for collocation is a labor-intensive function that is done in
 16 BellSouth by the Interexchange Network Access Coordinator (INAC). The INAC
 17 is the point of contact for all other engineering groups responsible for collocation
 18 activities and interfaces with all groups and the customer to identify and resolve
 19 issues relating to the collocation application. Each application is unique, even
 20 though the same customer may always have roughly the same requirements, since
 21 those requirements apply to different central offices. While a central office will
 22 likely receive more than one collocation request, each request is from a customer
 23 with particular specifications. The special circumstances of each collocation
 24 application drive the amount of planning and coordination that must be done in all
 25 work groups associated with physical collocation.

1
2 On page 17 of his testimony, Mr. Porter states “BST does not need to market to
3 WorldCom.” The marketing effort included in the study is not the selling function
4 associated with marketing, as Mr. Porter apparently believes. Rather, the
5 marketing expense in the cost study reflects the marketing and administrative
6 functions performed by BellSouth as part of the processing of the collocation
7 application request; these functions include meetings with the applicant, clarifying
8 terms and conditions, meeting with the INAC, processing the application,
9 preparing and distributing the response, and entering customer information for
10 billing to occur.

11
12 Property & Services Management and Outside Plant Engineering determine space
13 availability and research options for the point of interconnect. Common Systems
14 Capacity Management and Circuit Capacity Management perform planning
15 functions and site visits with respect to space, power, and cabling requirements and
16 availability.

17
18 **Q. PLEASE DESCRIBE THE FUNCTIONS CONTAINED IN BELLSOUTH’S**
19 **SPACE PREPARATION COST CALCULATION.**

20
21 **A.** BellSouth’s Space Construction is the cost of the physical construction of the
22 collocation enclosure and includes the cost of Property Management personnel to
23 oversee the construction of the enclosure. BellSouth hires an outside architect and
24 a contractor to construct the enclosure, but BellSouth Property Management
25 oversees the construction to ensure the quality of construction complies with

1 BellSouth standards. As Ms. Redmond explains in her testimony, each central
2 office has unique characteristics, local ordinances differ, and ALEC requirements
3 vary. Thus, space preparation can only be handled on an individual case basis
4 (ICB).

5
6 **Q. CAN YOU COMPARE THE BELLSOUTH ESTIMATES WITH THE**
7 **ATT/MCI MODEL'S RESULTS?**

8
9 **A.** It is impossible to identify the exact cause of the differences on a functional basis
10 since the AT&T/MCI model utilizes a different rate structure and different work
11 groups. However, Mr. Bissell provides a summary in Exhibit RB-1, Chart 6 of
12 the AT&T/MCI model's total for two functions; 52 hours per CLEC request and
13 66 hours for initial planning. If I assume the 52 hours closely relates to BellSouth's
14 application fee, one can readily see the AT&T/MCI model underestimates the
15 effort required by BellSouth by 35.5 hours (87.5 - 52). Since space preparation is
16 priced on an individual case basis, for reasons previously explained, a comparison
17 cannot be made to the AT&T/MCI result of 66 hours.
18

19 **VII. AT&T/MCI Nonrecurring Model**

20 **Q. DO YOU AGREE WITH THE ASSUMPTIONS USED IN THE MODEL?**

21
22 **A.** The structure and approach of the model appear to be reasonable. However, it is
23 readily apparent the model is founded on assumptions that are impossible to
24 achieve and will not be achieved in the foreseeable future.
25

1 Q. WHAT ARE SOME OF THE ASSUMPTIONS THAT YOU DISAGREE
2 WITH?

3

4 A. The first assumption I disagree with is that the service order and the provisioning
5 process is one giant integrated operation. Mr. Lynott's testimony provides us a
6 perfect example of just how unrealistic this assumption is. He states, "These
7 architectures are important because they are forward looking intelligent processor
8 controlled network elements that can communicate over standard interfaces to the
9 OSSs in such a manner that little-or-no manual intervention is required for
10 provisioning or maintenance activities." The technology described by Mr. Lynott
11 in this statement is not currently available at our serving area interfaces, and this
12 capability is not planned in the foreseeable future. As Mr. Stacy explained in his
13 testimony in Georgia Docket 7061-U:

14

15 "One of the earliest TMN compliant network elements to be developed was
16 the SONET node. This technology began to be commercially deployed in
17 ILEC networks in the mid-1980's. However, even today, over 10 years
18 after the initial deployment, the ability of these nodes to communicate with
19 the OSS is still severely restricted, because the systems from different
20 manufacturers do not use the same information to report their capabilities
21 or status changes to the OSS. This example of one of the oldest
22 versions of TMN compliant technology illustrates how long it takes in the
23 real world to translate vision into reality."

24

1 Nonrecurring forward-looking costs should reflect the costs that BellSouth expects
2 to incur and thus must be based on technologies that exist today which BellSouth
3 expects to deploy, not some hypothetical technology.

4
5 Work order activities such as engineering requests for manual assistance and
6 connect and test are required in order for BellSouth to provide a reliable product,
7 on time, that meets the customer's needs regardless of whether the customer is an
8 individual or an ALEC or whether the order was received manually or
9 electronically.

10
11 The model also assumes that all testing is collected in the recurring rates. This is
12 not true. Service order testing was specifically excluded from the recurring costs
13 as described in Section 4 of the study documentation.

14
15 **Q. DO YOU AGREE WITH THE FALL-OUT RATE USED IN THE NRC**
16 **MODEL?**

17
18 **A.** No. The NRC model allows a reasonable time of ³⁰~~19~~ minutes to resolve a fallout
19 situation. This is comparable to BellSouth's 15 minutes. The model, however,
20 grossly understates the percentage of orders that will require some intervention.
21 Mr. Lynott refers to Southwestern Bell's EASE system, a system which BellSouth
22 doesn't use, but failed to provide any description or documentation of the system.
23 Without sufficient documentation, it is impossible to determine if the system even
24 performs the activities required by Mr. Lynott's scenario. However, he does state
25 the fall-out quoted is for resale orders, not unbundled network elements.

1
2 Mr. Lynott makes the statement that "Even BellSouth admits that low fallout rates
3 currently are achievable." and attributes this statement to Mr. Stacy. Mr. Lynott
4 has conveniently taken Mr. Stacy's quotation out of context in implying BellSouth
5 believes a 97% is attainable. The complete statement reads as follows:

6
7 "BellSouth has achieved a flow-through rate of approximately 97% in certain
8 exchanges for retail residential services, although many other exchanges are
9 significantly lower. This rate has been achieved after approximately 15 years
10 of effort in designing, and re-designing the network and the OSS supporting
11 provisioning. When business services are examined, however, the story is very
12 different. Despite similar efforts over a long period of time, the best flow
13 through rates for business orders are about 80%. This is directly related to the
14 complexity of business orders."

15
16 BellSouth estimates a 20% front-end fall-out rate for ALEC wholesale orders from
17 the Electronic Interface. Mr. Lynott's argument that BellSouth's estimate implies
18 an inefficient operation is totally erroneous, particularly since he offers ~~makes this~~
19 no supporting documentation as to the efficiency of AT&T's nor MCI's electronic
20 systems to support his view. In contrast, BellSouth's fall-out rate is based on
21 actual experience with electronic ordering. The 20% front-end fall-out rate was
22 estimated after consulting with subject matter experts who had experience with
23 orders from Interexchange Carriers (IXCs) for access service. In the early stages
24 of electronic ordering by the IXCs there was a fall-out rate in excess of 30%. Over
25 time, the front-end fall-out rate has fallen to 10%. Over a three year period, it is

1 anticipated that the error rate will follow a similar pattern and the average over the
2 three year period will be approximately 20%. We cannot control the quality of the
3 data that will be input to our systems by ALECs. Mr. Landry addresses down-
4 stream fall-out rates in his testimony.

5
6 **Q. DO YOU AGREE THAT MIGRATION ACTIVITIES CAN BE**
7 **ACCOMPLISHED AUTOMATICALLY?**

8
9 A. No. Mr. Varner also addresses this issue in his testimony. Let me emphasize the
10 migration of a customer from BellSouth to a new entrant is not just a record
11 change. In an unbundled environment, the loop must be physically removed from
12 our switch and then re-terminated on the ALEC's switch or recombined in the
13 ALEC's space. This does not happen by magic, nor does improved OSS
14 capabilities allow this to happen automatically. Once again the cost is caused by
15 the ALEC, which must be recovered .

16
17 **Q. DOES THE NRC MODEL CALCULATE TRAVEL TIME CORRECTLY?**

18
19 A. No. The model assumes a travel time of 20 minutes and a probability of 20%. We
20 agree with these two inputs, but not their application within the AT&T/MCI
21 model. The model grossly understates the cost by assuming 4 activities per trip
22 and by restricting travel to only copper loops. In the BellSouth study, travel time
23 was estimated on a per order basis which already takes into account savings gained
24 by grouping orders and the time limitations imposed by arbitration agreements.
25 The BellSouth loop studies recognize additional units at the same location by

1 establishing a first cost and an additional cost. Travel is only assigned to the first
2 unit. Also, the assumption that loops provided over digital loop carrier do not
3 require a premises visit is incorrect. The technology required to allow this is not
4 planned.

5
6 **Q. WHY ARE THE LABOR RATES INCLUDED IN THE AT&T/MCI**
7 **NONRECURRING MODEL INAPPROPRIATE?**
8

9 A. The labor rates included in the AT&T/MCI NRC model have some very serious
10 flaws in their assumptions and development and should not be approved by the
11 Commission, for the following reasons:

12
13 1. The basic wage rate is based on data from the union contract, i.e., the highest
14 pay zone in each state. The union contract was last negotiated and approved in
15 1995. This contract is up for re-negotiation next year. Since no calculations were
16 made to inflate the wage data or include annual Cost of Living increases, this basic
17 wage data is embedded historical data, which is inappropriate for developing labor
18 rates to be applied in a forward-looking environment.

19
20 2. There are no labor expense loadings for motor vehicles and tools, which are
21 certainly expenses directly associated with most plant work activities.

22
23 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**
24

25 A. Yes.
26

1 **MS. WHITE:** Then would you all proceed with
2 your summary, please?

3 **A** **(Witness Zarakas)** Good afternoon,
4 commissioners. My involvement in developing the cost
5 for BellSouth's unbundled network elements was focused
6 on ensuring that a methodology and process were in
7 place that would yield accurate as well as
8 state-specific costs.

9 Accordingly, my portion of the panel's
10 testimony addresses the process and controls
11 incorporated into BellSouth's cost model as well as
12 the general openness and support for the cost model.

13 I would like to make three primary points in
14 my summary today. First, I would like to discuss
15 BellSouth's cost study methodology. The clear
16 objective in developing UNE costs is to reflect the
17 costs of as forward-looking and efficient a network as
18 one could operate in Florida. In other words, the
19 network should be hypothetical in that it is not the
20 network that BellSouth operates in Florida today, yet
21 this hypothetical network should also be grounded in
22 the realities of Florida.

23 While simple, I believe that this is a
24 critical point. The BellSouth cost model was designed
25 to produce forward-looking yet Florida-specific costs.

1 Several participants in various hearings
2 related to UNE costs have questioned the hypothetical
3 nature of BellSouth's study saying that it reflects
4 the actual cost of the BellSouth network that is in
5 place today. I disagree.

6 The real question relating to methodology is
7 this: Just how hypothetical a model should be adopted
8 as the basis for Florida-specific costs and prices?

9 This is an important and a critical issue
10 and one which I believe BellSouth has appropriately
11 addressed. The cost study which is presented today is
12 based on an efficient and forward-looking technology,
13 and in that sense it's very hypothetical, yet it is
14 grounded in realities which will not likely change in
15 the future and, therefore, those realities should be
16 reflected in a cost study.

17 My second point relates to the role of my
18 firm, Theodore Barry & Associates, or TB&A, with
19 regard to the BellSouth cost study. BellSouth, like
20 many telephone companies, has been involved in
21 developing costs for quite a few years, but recently
22 recognized that the cost study for unbundled network
23 elements would be different than its past cost study
24 efforts, and this would be different in several
25 regards.

1 First, the cost study would focus on
2 forward-looking costs, something that has not
3 necessarily been done in the past.

4 Second, the cost study would be voluminous,
5 and I think that's proved to be true just by the sheer
6 size of the cost study presented to the Commission
7 today.

8 And, third, that the cost study would
9 receive considerable attention from a whole range of
10 interested parties, a prediction I also believe has
11 been proved true.

12 BellSouth asked me and my firm to help them
13 make sure that their cost study was forward-looking
14 and reflected the requirements associated with
15 developing UNE costs.

16 They further asked that we work with them to
17 develop a process capable of producing consistent and
18 accurate cost studies in a very efficient fashion so
19 that they would be able to meet the demands for the
20 cost studies by the various commissions; other
21 commissions, obviously, in addition to the Florida
22 Commission.

23 Such a process had to integrate the various
24 individual aspects of cost study analysis and had to
25 develop checks for consistency and continuity. We

1 approached this project as we have in many process and
2 management audits.

3 We worked at developing a method and process
4 as well as guidelines that were used by the cost
5 analysts to develop UNE costs based on input from
6 numerous subject matter experts.

7 The subject matter experts provided
8 information into our cost study, information relating
9 to the hypothetical yet the Florida-specific network
10 that I spoke of a few minutes ago. And those experts
11 will also be explaining assumptions throughout the
12 testimony before the Commission in the next several
13 days.

14 There is one final point that I would like
15 to make in my summary today, and that involves the
16 openness and support relating to the cost study.
17 Making a large study also an open study was an
18 important and a considerable task.

19 The need for an open model was a driver in
20 developing the cost study process and it required that
21 all inputs and assumptions be clearly stated and
22 available to anyone who wants to inspect them. I
23 believe that this goal has been met.

24 The cost study is well-documented and,
25 further -- and I believe that this is an important

1 additional point -- the cost study is presented
2 through our TELRIC calculator which automates many of
3 the lengths and calculations associated with the cost
4 study.

5 It's gone an additional step in that it
6 allows reviewers to change inputs to reflect their own
7 views. Thus, if any party disagrees with any of the
8 details of the cost study, they can change the inputs
9 to get a revised result. Or, in other words, if a
10 subject matter expert representing one of the
11 interested parties disagrees with a BellSouth subject
12 matter expert, they can change the assumptions in the
13 BellSouth cost study and a corresponding result would
14 be produced.

15 In summary, the BellSouth cost study
16 provides an open and supportable treatment of a very
17 complex issue. It follows a hypothetical framework
18 for also using Florida-specific characteristics to
19 ground it in reality, and it is designed to facilitate
20 the input of other interested parties.

21 That concludes my summary, and Ms. Caldwell
22 will now address some of the issues relating to the
23 nature of the costs and some of the specific unbundled
24 network elements.

25 **WITNESS CALDWELL:** Good afternoon. First of

1 all, many of the unbundled network element rates have
2 been set by this Commission in previous arbitration
3 proceedings.

4 In order to establish permanent rates for
5 other unbundled network elements, BellSouth has
6 provided documented cost support for the following:
7 Unbundled local loops, sub-loop 2-wire distribution,
8 sub-loop 4-wire distribution, network interface
9 device, 2-wire ADSL, which is asymmetrical digital
10 subscriber line, 2-wire HDSL, which is a high bit rate
11 digital subscriber line, and a 4-wire HDSL.

12 For unbundled ports, we have provided 4-wire
13 analog voice grade port and then a cost study for all
14 of the features that would be associated with that
15 port; unbundled transport facilities, dedicated DS-1,
16 and for this only nonrecurring was required; directory
17 assistance, and for that we have looked at directory
18 assistance transport; and then, of course, virtual and
19 physical collocation.

20 BellSouth has conducted studies whose
21 underlying foundation is total service long run
22 incremental costs, TSLRIC. It is based on the
23 economic theory that costs should be long run, forward
24 looking, reflect least cost, efficient technologies,
25 and include directly attributable costs which are

1 determined based on cost causation.

2 The main purpose of this hearing is to set
3 rates, rates which will be based on costs. Thus,
4 BellSouth has included additional layers to the TSLRIC
5 results to ensure BellSouth is compensated for costs
6 the company will incur in providing unbundled network
7 elements to ALECs.

8 Shared and common costs augment the TSLRIC
9 results to account for these costs to BellSouth.

10 Mr. Reid addresses this methodology in determining the
11 shared and common cost that was used in our studies.

12 Additionally, another cost component, the
13 residual recovery requirement, is added to capture the
14 difference between the forward-looking TSLRIC plus
15 shared and common results and the actual cost to
16 providing unbundled network elements.

17 As Mr. Varner has explained, the residual
18 recovery requirement is only applied to the loop and
19 port elements. The TSLRIC plus shared and common,
20 plus residual recovery requirement costs provide the
21 cost supports for the rates presented by Mr. Varner.

22 Nonrecurring costs were also developed for
23 each rate element. To be consistent with the studies
24 which form the basis of the rates already set by this
25 Commission, these costs assumed a manual ordering

1 process.

2 However, BellSouth realizes that the most
3 probable way in which orders will be received will be
4 via an electronic medium. Thus, we have also
5 developed the cost of the manual increment included in
6 the manual cost.

7 If one wants to determine the cost of
8 ordering an unbundled network element electronically,
9 subtract this increment from the appropriate manual
10 result. And Mr. Varner has provided that in his
11 exhibit.

12 In summary, BellSouth has developed cost
13 support for the unbundled network elements I have
14 previously mentioned to facilitate the rate setting
15 process. These costs, both recurring and
16 nonrecurring, follow the TSLRIC principles as
17 supported by this Commission.

18 Additionally, shared and common costs plus
19 the residual recovery requirement have been added to
20 reflect the costs BellSouth will incur in providing
21 these elements.

22 Thank you.

23 **MS. WHITE:** Ms. Caldwell and Mr. Zarakas are
24 available for cross-examination.

25 **MR. PELLEGRINI:** Chairman Johnson, at this

1 time Staff would offer P-7 and ask that it be marked
2 for identification. That consists of Ms. Caldwell,
3 then Mr. Zarakas' deposition transcript January 14,
4 1998, as well as the deposition and Late-filed
5 Deposition Exhibit Nos. 1 through 18. That should be
6 Exhibit 14, I believe.

7 **CHAIRMAN JOHNSON:** It will be identified as
8 14 and short titled Staff's P-7.

9 (Exhibit 14 marked for identification.)

10 **MR. PELLEGRINI:** And, in addition, Staff
11 would offer P-8 which consists of the confidential
12 deposition and Late-filed Deposition Exhibits 1, 2, 3,
13 6 and 16, and that is Item G in the confidential
14 packet.

15 **CHAIRMAN JOHNSON:** Okay. Could you give me
16 a short title for what you were referring to?

17 **MR. PELLEGRINI:** Confidential deposition,
18 Caldwell/Zarakas.

19 **CHAIRMAN JOHNSON:** Confidential depo,
20 Caldwell and Zarakas.

21 **MR. PELLEGRINI:** Yes.

22 (Exhibit 15 marked for identification.)

23 **CHAIRMAN JOHNSON:** Thank you. And the
24 witness is available for cross-examination?

25 **MR. LEMMER:** Madam Chairman, Tom Lemmer for

1 AT&T.

2 **CROSS EXAMINATION**

3 **BY MR. LEMMER:**

4 Q Good afternoon, Ms. Caldwell and
5 Mr. Zarakas.

6 Ms. Caldwell, you mentioned in your summary
7 that the cost causation is a component of how you went
8 about preparing your study, correct?

9 A (Witness Caldwell) That's correct.

10 Q And would it be fair to say that the concept
11 of cost causation is to match a cost with what causes
12 the cost to be incurred?

13 A That's fair.

14 Q And would you agree that the concept of cost
15 causation is an important concept for developing
16 appropriate costs presented to this Commission?

17 A Yes.

18 Q Now, when we're talking about nonrecurring
19 costs, would it be fair to say that we're talking
20 about costs that are incurred because of a specific
21 event that occurs?

22 A Yes. In particular, we're talking in these
23 studies about costs associated with the provisioning
24 of a service.

25 Q And when we're talking about nonrecurring

1 costs, we're also talking about a cost that benefits
2 one particular -- in the competitive world, one
3 particular CLEC; would that be correct? Again, using
4 your example of provisioning.

5 A Yes. In fact, the cost is caused by that
6 one particular CLEC that's placing the order, whether
7 it be for a loop or for a port.

8 Q Now, when we're talking about recurring
9 costs, which are the other type of costs that's
10 presented in your study -- is that a fair statement;
11 we're talking about nonrecurring costs and recurring
12 costs?

13 A Yes.

14 Q And when we're talking about recurring
15 costs, we're talking about a cost that is caused by
16 more than one event. Fair statement?

17 A I don't think about it in terms of events.
18 I have a little trouble with yes and no on that. It
19 is the cost associated with -- in particular what
20 we're looking at here would be an investment related
21 cost, a cost that is going to carry with it -- even
22 though you expend the money one time, you have ongoing
23 costs, such as depreciation, cost of the money
24 associated with that investment. So those are the
25 type recurring costs we have. That's my capital.

1 Then we also have costs associated with that
2 investment, which will be maintenance, that is the
3 ongoing maintenance associated with that particular
4 item of plant.

5 Q And these type of costs, the capital costs,
6 the maintenance costs that you just referred, confer a
7 benefit on whoever is using that particular investment
8 that you're talking about; for example a loop. Fair
9 statement?

10 A Yes.

11 Q And there may be multiple users of a loop
12 over time; isn't that correct?

13 A That is correct.

14 Q And when we're talking about identifying
15 recurring costs when a service is installed -- and
16 let's just say it's plain old telephone service -- the
17 installation of that would involve certain investments
18 such as cable and cross-connects and that sort of
19 thing; is that correct?

20 A I have to break that into two categories.
21 If you're looking at the investment associated with a
22 service -- in this case let me just deal with the loop
23 portion of a basic local exchange service -- you have
24 investment associated with the cable, the large items
25 of plant that are necessary to make that particular

1 service -- excuse me -- that particular investment
2 able to provide service. Those are all capital costs,
3 and we include those in our recurring costs.

4 Certain of the cross-connects that are
5 associated with establishing the service, those -- the
6 time associated with making those cross-connects are
7 done at the time a service order is generated to
8 install service. So those particular items could be
9 in the nonrecurring.

10 Q Now, these cross-connects that you just
11 mentioned, if they were installed when a service was
12 brand new, service was being initially installed,
13 those cross-connect costs would be associated with
14 that new installation. Fair statement?

15 A Yes. Associated with the service order that
16 installs it the first time, correct.

17 Q Now, if you have a -- let's just focus on a
18 loop. If you have a loop in place, but that loop were
19 to somehow be upgraded or transformed through the
20 addition of certain types of equipment to that loop,
21 that equipment would be considered capital investment,
22 correct?

23 A In most cases there are rules as to the size
24 of equipment. The value of that equipment sometime
25 may be expensed. But in the loop, the only thing I

1 can think in our study that ever would be expensed
2 would be the separate NID we discussed this morning,
3 the ALEC NID, which would be expensed. It's not
4 physically connected to the loop. Other than that,
5 all the loop is capitalized items.

6 Q And I believe you said capital costs result
7 in recurring costs through depreciation, correct?

8 A Yes.

9 Q Once equipment is installed -- and let's
10 continue to focus on the loop -- that investment is
11 fixed. I mean, the cost of installing that loop is
12 the cost that's reflected to BellSouth's books; isn't
13 that correct?

14 A Yes.

15 Q And that cost is reduced through
16 depreciation, correct?

17 A That is one method of recovery, yes.

18 Q And it might be increased through
19 improvements like we've just talked about, correct?

20 A Yes.

21 Q And that loop physically will remain in
22 place; isn't that correct?

23 A It will remain in place for the usable life
24 of the plant, yes.

25 Q And the remaining in place of that loop is

1 known through a practice that's known as dedicated
2 outside plant; isn't that correct?

3 A That is one -- yes. That is one example of
4 where the physical loop remains connected, correct.

5 Q So the loop is installed, and from a costing
6 point of view, those costs continue out through the
7 costing life of the loop, and physically that loop
8 stays connected. Fair statement? So that the costs
9 and physical existence of that loop run together?

10 A Yes; but I need to explain a fine point
11 here. The investment associated with all of the
12 cable, the NID, all those particular items of plant,
13 those are capitalized items, and they are capitalized
14 onto BellSouth's books and depreciated over the usable
15 life of the item of plant.

16 The nonrecurring costs that are associated
17 with when the actual loop is placed into service,
18 those particular costs are expensed. So they would
19 not be depreciated over the life of the plant. I just
20 wanted to make that distinction for you.

21 Q But because they're nonrecurring costs,
22 those types of costs that you just said were
23 nonrecurring, would not be repeated in the future
24 absent some other event requiring that they be
25 incurred; isn't that correct?

1 A For that particular loop, yes, they would
2 not be incurred again. However, I need to again
3 explain a little bit here.

4 When you place the loop in service the first
5 time, there are nonrecurring costs associated with the
6 service order of provisioning and connecting and
7 testing that facility. If that particular loop is
8 left dedicated to that particular customer's location,
9 you could have some different nonrecurring costs
10 associated with it, but you would not incur all of the
11 same ones. For instance, you would not be traveling
12 again.

13 Q I'm sorry. I didn't catch that.

14 A You would not be traveling on the second
15 installation.

16 Q Now, from the standpoint of identifying
17 nonrecurring costs, there are also other costs other
18 than investment type costs that are recurring costs,
19 such as, you know, the head of the organization,
20 accountants, lawyers, those types of costs; isn't that
21 correct?

22 A Yes. We identified those in our shared and
23 common costs.

24 Q And the cost of middle management
25 supervisors, those are also nonrecurring -- excuse

1 me -- those are also recurring costs; isn't that
2 correct?

3 A In terms of middle management, the -- I'm
4 not sure how everybody defines middle management. So
5 let me give you my definition of where the costs are.

6 If I'm looking at the first level of
7 supervision of an installation technician, that is
8 included in the direct cost of that technician. That
9 would be seen in our labor rates. The costs above
10 that in most cases are going to be included in your
11 shared and common.

12 Now, in some of our studies, you would have
13 a second level of management, because they do true
14 customer relations or interfacing with customers. For
15 instance, in some of the application fee of
16 collocation we discussed this morning, there are some
17 second level management positions. You will see them
18 identified in our studies as I believe it's marketing
19 pay band 58. So those would be your second level
20 management.

21 They are identified as direct costs, because
22 the time that they work on that application fee is
23 directly associated with that unbundled network
24 element for that customer.

25 Q Now, when we're talking about share the

1 costs, we're talking about costs that exist because
2 there is an activity that occurs within BellSouth's
3 organization. In other words, there are supervisors
4 who supervise the activity of a particular type of
5 department. Installation, for example. Fair
6 statement?

7 A Could you repeat the first part of that
8 question?

9 Q My question is we're talking about shared
10 costs, and when you're talking about shared costs
11 you're talking about the type of cost that's incurred
12 because there is a type of activity that BellSouth
13 undertakes to perform. And I just used installation
14 as an example. Is that a fair statement?

15 A There are shared costs associated with
16 installation, yes.

17 Q And those shared costs exist because there
18 are -- again continuing my example -- there are
19 individuals that perform the installation function and
20 they need to be supervised. So you have supervisory
21 type of shared costs, correct?

22 A Yes, there is some supervision there,
23 correct.

24 Q Now, common costs are required simply
25 because in a sense the organization exists. Is that a

1 fair statement?

2 A Yes.

3 Q Again, it's the head -- it's the lawyers,
4 it's the accountants, the organizational type of
5 costs?

6 A Yes; specific costs that cannot be assigned
7 to any service or, in this case, any element.

8 Q Now, in developing the recurring costs that
9 were developed for this study, I believe you stated in
10 your testimony that those costs reflect a TSLRIC
11 approach; is that correct?

12 A Yes.

13 Q And that approach is to develop long run
14 incremental costs correct?

15 A Correct.

16 Q And those costs are to be reflective of
17 economic costs, correct?

18 A That's correct.

19 Q Now, your cost study presents a cost number
20 to this Commission to consider for purposes of
21 determining rates that I believe you stated in your
22 summary is reflective of the TSLRIC plus shared, plus
23 common, plus the residual; is that correct?

24 A That is correct. We supplied two numbers to
25 the Commission. We supplied, first of all, the TSLRIC

1 number that included no shared and common. Then we
2 provided a number that included shared and common for
3 each unbundled network element, and on the loop and
4 port, where appropriate, we also included the residual
5 recovery requirement number.

6 Q Now, the residual recovery requirement for,
7 say, the port is the difference between the historical
8 cost for the port less the TSLRIC, plus shared and
9 common; isn't that correct?

10 A Yes. In terms of the historical, as it was
11 discussed this morning, you begin with -- and I'd like
12 to kind of explain this so you understand the term
13 "historical".

14 We started with the investment associated
15 with the nontraffic-sensitive portion of the switch
16 that you would have in the state of Florida. That's
17 what the port would be associated with that particular
18 unbundled network element.

19 So once we have that investment, that
20 represents the gross investment we have in switches in
21 the state of Florida. So what we then do is take that
22 investment and convert that to cost using our
23 forward-looking annual cost factors just like we had
24 done in our TSLRIC studies with one adjustment. We
25 adjusted the cost of money to include the existing

1 cost of debt for BellSouth.

2 So when you look at that particular
3 calculation, the overall cost of money is less than
4 the 11.25 we used in the TSLRIC, but that is the
5 foundation of the number that we're subtracting from;
6 and we do subtract both the combined TSLRIC plus
7 shared and common.

8 Q The historical costs that you just defined
9 are predicated upon the investment values that are
10 currently on BellSouth's books; isn't that correct?

11 A Yes, for those items of plant.

12 Q And the cost that BellSouth is proposing for
13 this Commission to study is the historical cost,
14 because that is the higher cost for the port and for
15 the loop; isn't that correct?

16 A We are proposing the impact of residual
17 recovery requirement, but I think I've clearly stated
18 we did not take pure embedded costs. We looked at it
19 with forward-looking depreciation; we looked at it
20 with forward-looking equity, and then forward-looking
21 maintenance and the expenses associated with it.

22 Q Well, now, Ms. Caldwell, the depreciation
23 doesn't change the cost that's being calculated, does
24 it? It just spreads it over a different period of
25 time, but ultimately you recover the same amount of

1 cost; isn't that correct?

2 A That's correct. Ultimately you recover the
3 same amount of cost. But what we're looking at here
4 would be a monthly cost, so the monthly value would
5 differ based upon the depreciation life.

6 Q But the bottom line is if you had an
7 investment worth \$100, you're going to recover that
8 \$100 whether you use a ten-year life or a five-year
9 life; isn't that correct?

10 A Yes.

11 Q So then the bottom line is what is being
12 presented to this Commission is historical costs for
13 purposes of determining the rates?

14 A They are the costs BellSouth will incur
15 based upon the investments that we have.

16 Q And isn't it true that based on the TSLRIC
17 studies that assume the TSLRIC came out to be a
18 nickel, that the cost proposed to this Commission
19 would not change; it would be the same cost that's
20 being proposed in your study?

21 In other words, the TSLRIC number, TSLRIC
22 plus common, plus shared is really not a meaningful
23 figure for this Commission, is it, because BellSouth
24 is asking for the historical costs?

25 A What we have proposed is the TSLRIC plus

1 shared and common and residual recovery requirement,
2 which I feel we've stated includes the cost of the
3 historical investment that we have.

4 The TSLRIC is meaningful to the Commission.
5 First of all, the Commission asked for it and, also,
6 it gives you an understanding of where the
7 forward-looking costs are as well as the amount of
8 shared and common that we have to recover, and then
9 what the amount of residual recovery would be that we
10 need to -- excuse me -- the actual value amount of the
11 residual recovery requirement.

12 So based upon having all of that
13 information, that helps you make the decision as to
14 what the correct rates should be.

15 Q But, for example, if we're looking at the
16 loop distribution for the 2-wire analog voice grade
17 loop, we're look at a TSLRIC plus shared and common of
18 \$10.24 with a residual or recovery of \$2.33, so we're
19 talking about a proposed cost of about \$12.47. Would
20 you agree that's accurate?

21 A I happen to have Mr. Varner's exhibits. I
22 believe it's \$10.24 plus \$2.33 was the \$12.57.

23 Q \$12.57, yes. If the TSLRIC dropped down to
24 \$5 through adjustments made by this Commission,
25 BellSouth would still propose that -- essentially the

1 \$10.47 -- \$10.57; isn't that correct?

2 A That would be our proposed rate, correct.

3 Q Now, the recurring costs that are proposed
4 to this Commission on a TSLRIC basis is to represent
5 the most efficient, least cost, forward-looking
6 technology; isn't that correct?

7 A Yes.

8 Q It is to represent what the future would
9 hold looking at what technologies are available, what
10 impact they will have in the future, how they will
11 impact costs; isn't that correct?

12 A Yes, I would agree with that.

13 Q And for purposes of the TSLRIC study that
14 BellSouth conducted for presentation to this
15 Commission, the placement of the wires for the network
16 in Florida by BellSouth are assumed to be the same
17 going into the future as they are today; isn't that
18 correct?

19 A No, I do not agree with that. The loop
20 study -- when you say placement of wires, I'm assuming
21 that's what we're discussing -- the loop studies that
22 we provided for were for distribution plant. They
23 were also for the ADSL and HDSL loops. What we have
24 done is to consider forward-looking, most efficient
25 costs; and with that we included only 26-gauge copper

1 in those particular offerings, which today it could
2 actually be served on 22-gauge, which is a more
3 expensive copper facility.

4 Q But isn't it a fact that the location of the
5 placement of the cables has not changed?

6 A The actual location, which I often refer to
7 as the infrastructure, that is the actual route from
8 the central office to the customer's home, or in this
9 case could be a business also, that does not change.

10 Q Isn't it also true that the assumption as to
11 what is aerial and what is buried is not changed? You
12 used the current percentages for today?

13 A Yes, we did. We based that analysis on a
14 sample of customers for residence and business
15 customers in the state of Florida, and we used the
16 same distribution to aerial, buried, and underground
17 facilities with the understanding that those were the
18 economical placements at that point in time when they
19 were originally placed; and we see no reason to feel
20 that they would change going forward.

21 Q And vendor prices that are used for purposes
22 of your study are the vendor prices that are in place
23 today; isn't that correct?

24 A Vendor prices are from our existing
25 contracts that have a three five-year life. Those are

1 the prices that BellSouth will be paying in our
2 studies we've done from 1997 to '99. Those are the
3 prices we will be paying for items of plant.

4 Q And the fill factors, would you tell me what
5 a fill factor is?

6 A Another term for fill factor is a
7 utilization factor. It represents the amount of plant
8 that is not currently being used.

9 For instance, let's say you have a 100-pair
10 cable. If you have a utilization factor of 70, that
11 means 70 of those pairs in that cable are working
12 today. The 30% would be the facilities that are there
13 for administration, spare, and growth.

14 Q And to the extent that there is capacity in
15 a cable or capacity in some piece of equipment that is
16 not being utilized, given the application of fill
17 factors, the current users of that cable or equipment
18 pay for the unused capacity; isn't that correct?

19 A That is correct. You calculate your
20 investment for that item of plant, and then you divide
21 by your utilization or fill factor; and in essence
22 what that does is assign to each one of the working
23 facilities a fair share of the spare, because you need
24 spare facilities in plant. They are
25 nonrevenue-producing, so you need to identify them

1 with the working pairs. It's a direct cost. You need
2 spare for maintenance, for administration, and for
3 growth to serve the next customer.

4 Q And so the lower the fill factor, the higher
5 the cost to the current users; isn't that correct?

6 A Yes.

7 Q And the fill factors used in BellSouth's
8 study for forward-looking purposes are the fill
9 factors that exist today; isn't that correct?

10 A There's several different items of fill
11 factors. Let's talk first about the cable fill
12 factors, which is used in the loop studies.

13 Those fill factors are the fill factors that
14 BellSouth is achieving today in the state of Florida.
15 We talked to our network in -- excuse me -- our
16 network experts on outside plant, and they provided to
17 the cost organization the fill factors as they are,
18 and said looking forward they did not see any change
19 in those fill factors as we move into the next --
20 well, the future as we go here. Our study was three
21 years.

22 So from our standpoint, they may be what is
23 actually working there today. However, network
24 assures us those are projected in the time frame we're
25 studying here.

1 In the other items of plant -- I'm not quite
2 as familiar right off the top with each one of those
3 factors -- but in every case we looked at what the
4 factors were today and then we looked at if there were
5 going to be any change. And I do know that at least
6 one example, and a multiplexer -- which is only used
7 in the residual recovery study -- but the actual
8 multiplexer factor was changed from what it was today
9 because they felt they could get more efficient going
10 into the future.

11 Q In the assessment by these experts regarding
12 fill factors in the future, you don't understand
13 whether they considered the impacts of competition or
14 not, do you?

15 A Not in detail. We discussed that in the
16 deposition. My understanding was that they did take
17 it into consideration, but I do not have any detailed
18 information on that. Mr. Baeza who will be testifying
19 for network could possibly answer that one for you.

20 Q Now, for purposes of developing the
21 recurring costs in the study, the investment costs
22 were developed as the result of taking a sample; isn't
23 that correct?

24 A For the loop, yes.

25 Q And that sample is stated to be a

1 statistically valid sample; isn't that correct?

2 A That is correct. And Mr. Ellis Smith filed
3 testimony to that effect.

4 Q And as a result of that sample, cost --
5 investment, I should say -- for such items as cable
6 and equipment were developed, correct?

7 A The physical makeup of the loop was
8 determined from that sample. The actual investment
9 was calculated using material prices from our vendors
10 and then applying it to the items of plant identified
11 in the sample.

12 And I need to state again here that we did
13 not use the sample as it exists today entirely. We
14 recast each one of those loops. And, say, for
15 instance we're looking at the distribution. Going
16 forward we only considered 26-gauge copper cable,
17 because that's the most cost-effective way to provide
18 the distribution. So those considerations were made.

19 Q You spoke of recast. Based on what is in
20 the cost study, there was a sample taken of
21 approximately 300 -- the sample was 350 loops, give or
22 take one or two; isn't that correct?

23 A I think that was about correct.

24 Q And for residence, there were approximately
25 175 loops used in the sample; isn't that correct?

1 A Approximately.

2 Q And there were 175 business loops taken,
3 correct?

4 A Approximately.

5 Q This sample excluded any ESSX loops; isn't
6 that correct?

7 A That is correct. We looked at residence and
8 business customers.

9 Q Now, you can provide telephone service over
10 ESSX loops, can't you?

11 A Yes, ESSX service is provided; that's
12 correct.

13 Q And ESSX loops are copper loops; isn't that
14 correct?

15 A That is correct. The reason ESSX was
16 excluded from the sample was that in the very
17 beginning when we started looking at the study, we
18 looked at where unbundled network elements we felt
19 would be provided; and for that we used residence and
20 business customers.

21 ESSX is a unique offering. Where the
22 customers are that purchase ESSX has been driven to
23 some degree by the rate structure, because we had --
24 throughout the time period we've had rate structures
25 associated on distance sensitive pricing. So with

1 that, that forced the customers to be very close in.

2 And, also, ESSX customers purchase loops in
3 very large numbers, like 5,000, 10,000; and we did not
4 feel that was going to be representative of
5 individuals buying unbundled network elements, one
6 loop, two loops, three loops, even 10 loops. If
7 you're going to buy that many loops for unbundled
8 network purposes, then a DS-1, which we are offering,
9 would be a much more economical way to serve that
10 customer. So that's why ESSX was omitted from the
11 sampling process.

12 Q Isn't it true that ESSX loops on average are
13 sold in a bundle of about eight loops?

14 A I do not remember that number. I thought it
15 was a little bit higher.

16 Q But it's certainly a lot less than 5,000;
17 isn't that correct?

18 A Oh, yes.

19 Q In fact, it's somewhere less than 10; isn't
20 that correct? The grouping is less than 10 loops for
21 your average ESSX purchase?

22 A I cannot answer that. I do not remember
23 exactly. I will agree it was less than the 5,000, but
24 I did not think it was less than 10; but I cannot
25 remember.

1 Q And on average, an ESSX loop is shorter than
2 other loops. Isn't that a fair statement?

3 A Yes. I mentioned that in terms of the
4 pricing structure.

5 Q And on average, an ESSX loop is less costly
6 than a non-ESSX loop. Isn't that a fair statement?

7 A Yes; based on the length and physical
8 makeup, which is going to be predominantly copper.

9 Q Now, the purpose of the analysis of the cost
10 study was to develop certain costs relating to HDSL
11 and ADSL loops as one of the purposes of the study,
12 correct?

13 A Yes.

14 Q Both of those items are new to BellSouth of
15 Florida; isn't that correct? Or those services, I
16 should say.

17 A Yes, the services.

18 Q Are there any HDSL services that are
19 operational today in the state of Florida?

20 A I do not know if there is any operational
21 today. I do know that BellSouth uses HDSL, which is a
22 DS-1 offering, and we will use it in some locations to
23 provide DS-1 service, but we do not call that HDSL
24 service at this point in time. That's just a function
25 of the network. But I do not know to what degree that

1 is deployed in Florida.

2 Q So you don't know to what degree ADSL or
3 HDSL is employed in the state of Florida?

4 A No, I do not. Mr. Baeza may can answer
5 that.

6 Q Now, in the sample that was taken, the
7 description in the cost study states of the 175
8 residential loops, around 100 of those loops were ADSL
9 and HDSL loops; isn't that correct what the study
10 says?

11 A They were ADSL and HDSL compatible. What we
12 did was we look at the transmission requirements. The
13 ALEC is going to be providing all of the electronics.
14 All BellSouth would provide would be the copper
15 facility. So we looked at copper facilities that met
16 the distance requirements.

17 For instance, on ADSL it's 18,000 feet, and
18 on HDSL it's 9,000 feet. But at the time the sample
19 was taken, there were no HDSL or ADSL loops in the
20 state of Florida; and if there are any now, there
21 would be very few.

22 Q ESSX loops would be shorter than those
23 maximum distances permitted for ADSL and HDSL; isn't
24 that correct?

25 A I have not seen the average length in the

1 state of Florida for ESSX customers, so I cannot
2 answer that.

3 Q But ESSX loops are very short loops; isn't
4 that correct?

5 A Yes. I've said they're short, yes.

6 Q Now, another part of the recurring costs
7 that are in your study relates to the drop; isn't that
8 correct?

9 A That's correct.

10 Q And the drop is the wire that runs from the
11 distribution cable to the customer?

12 A Yes.

13 Q Would you agree with that? Do you know the
14 average number of pairs in the state of Florida that
15 run to a residential customer?

16 A It's in the study. I would have to look it
17 up. It's between one and two.

18 Q Now, isn't it true that for purposes of the
19 study, that there is a cost reflected in the study for
20 buried drops that reflect five pairs in that buried
21 drop?

22 A Yes. That is the size facility that
23 BellSouth is deploying in all of their network across
24 the region.

25 Q So that unused 3-pair capacity in the drops

1 is a cost that the current users are paying for,
2 correct?

3 A Yes, because that drop goes from the serving
4 terminal to the customer's location.

5 Q And if you were a CLEC who bought that drop
6 or leased the drop for sale to a customer, you would
7 be -- that CLEC would be paying for those three unused
8 pairs in that buried drop; isn't that correct?

9 A That is correct. But when you place the
10 five-pair drop, the reason you place that is this is
11 going to be -- and this is buried -- so you're
12 actually burying it in individuals -- under their
13 driveways, in their lawns, through their flower beds.
14 And the placing cost is the predominant cost of the
15 facility, not whether or not you have two pair or
16 three pair or five.

17 So from that standpoint, BellSouth has
18 decided that the economical way to go is to place the
19 5-pair drop so you do not have to go back and place
20 additional drops at a later point in time and again
21 invade someone's home; which would be their lawn in
22 this particular case.

23 So that's the reason that we've gone with
24 the five pair, and it doesn't matter if that five pair
25 is associated with an end user of BellSouth or if it's

1 going to be associated with an ALEC's end user.

2 **COMMISSIONER CLARK:** Ms. Caldwell, do you
3 know what the incremental cost is of just adding those
4 three pairs?

5 **WITNESS CALDWELL:** Right off I do not, but I
6 could calculate that. It is within the study.

7 **COMMISSIONER CLARK:** What is the reason
8 BellSouth chose five pair?

9 **WITNESS CALDWELL:** In terms of the five, I
10 cannot answer, but Mr. Baeza should be able to. That
11 is one of his areas.

12 **Q** **(By Mr. Lemmer)** Ms. Caldwell, let's talk
13 about nonrecurring costs for a few minutes. When
14 we're talking about nonrecurring costs, we're talking
15 about what have been grouped as essentially three or
16 four different types of events.

17 There is provisioning. Would you agree with
18 that?

19 **A** Yes.

20 **Q** Let me start off with first there's
21 ordering. That's one. Would you agree?

22 **A** Yes.

23 **Q** And then there's provisioning?

24 **A** Yes.

25 **Q** And then there's installing?

1 A Yes.

2 Q And then there's disconnecting?

3 A Yes.

4 Q So would you agree that those are the four
5 groupings of what I'll call activities or events
6 relating to nonrecurring costs?

7 A Yes, I could accept those. In our study we
8 document them a little bit differently by different
9 names, so just let me clarify that for people who have
10 looked at this study.

11 We look at service order processing. Then
12 we look at our engineering, which would be under your
13 term "provisioning". Then we look at our connect and
14 test, which I would put under your term
15 "installation". And then you have in some cases
16 travel, which I believe would be under your term
17 "installation". And then finally, we do have the
18 disconnect activity as a separate, stand-alone item.

19 Q And the nonrecurring costs that are
20 presented to this Commission in your study are a
21 function of the time of those activities times a labor
22 rate. Fair statement?

23 A Yes, that's a fair statement.

24 Q So then the accuracy of the -- let me
25 rephrase my question. So then the need for a

1 particular activity is certainly important for
2 determining nonrecurring costs. Would you agree with
3 that?

4 A Definitely.

5 Q And the time associated with that particular
6 activity is important also?

7 A Yes.

8 Q And the labor rate is also an important
9 factor, correct?

10 A Yes.

11 Q Now, the labor rate that's used in your
12 study reflects the salary, the wages paid to the
13 individual who is performing a type of nonrecurring
14 activity plus a portion of shared and common costs;
15 isn't that correct?

16 A In the TELRIC study where you add on the
17 shared and common, in the TSLRIC it does not include
18 the shared and common component.

19 Q So in the TELRIC portion of your study, the
20 nonrecurring costs that are presented to this
21 Commission include the -- what I'll call the labor
22 component plus a shared cost component, plus a common
23 cost component; isn't that correct?

24 A That's correct. As Mr. Reid will explain in
25 his testimony, for each individual labor rate there is

1 assigned a certain portion of the shared cost to
2 account for the back office that supports that
3 individual's and shared items these individuals may
4 use.

5 Q Now, for each one of the types of shared
6 costs that are included in these rates, is it your
7 testimony that those costs exist because there are
8 ordering, provisioning, installing, and disconnecting
9 activities?

10 A Yes. They are associated with the fact that
11 you have a technician or a service representative that
12 performs those activities, and because you have them,
13 there are shared costs that we have assigned to them.

14 Q Now, I understand that the cost study
15 associates those costs with the nonrecurring activity.
16 But my question to you is, does the nonrecurring
17 activity cause BellSouth to incur those costs?

18 A Yes; because you have an individual on the
19 payroll, a technician for instance, that's purpose is
20 to install telephones. So installing telephones is,
21 by definition, a nonrecurring activity; so, therefore,
22 the nonrecurring cost has shared costs associated with
23 it.

24 Q But if you had a supervisor who supervised
25 someone who installed telephones and supervised other

1 individuals who did not install telephones, that
2 supervisor's costs benefit both activities, the
3 installation and the other activity; isn't that
4 correct?

5 A That is correct.

6 Q And if the installation activity was zero,
7 and there were a lot of events or requirements on the
8 other side of the house, that supervisor would still
9 be supervising, wouldn't he?

10 A That is correct, but we would not have
11 assigned any of that cost to an installing activity,
12 because there were no activities for installation.

13 Q And that's my point. The installation does
14 not cause the incurrence of the supervisor's cost;
15 isn't that correct?

16 A In dealing with the shared cost, there are
17 costs by definition that are shared. And what you are
18 dealing with here is, by some method you are assigning
19 those to particular activities or particular unbundled
20 network elements. This goes from basically the
21 definition in the FCC order for TELRIC, is that shared
22 costs are costs that should be assigned to their
23 greatest possibility down to the individual unbundled
24 network elements.

25 So from a pure economic standpoint, and in

1 the TSLRIC, we did not include any of those shared
2 costs. However, when you are assigning shared costs,
3 that's basically what you're doing; you're assigning
4 it to the different functions.

5 There has to be a method of allocation, and
6 that's what Mr. Reid discusses is exactly how he
7 allocated those costs from a shared category to the
8 individual elements; in this case, the labor rates.

9 Q Can you tell me where in the FCC order the
10 FCC order requires the allocation of a shared cost to
11 a nonrecurring activity?

12 A It doesn't specifically say shared cost to a
13 nonrecurring activity, but it does say that when
14 you're defining the TELRIC cost associated with
15 unbundled network elements, that you would assign --
16 many of your costs that had been shared in the past
17 will now become costs directly associated with
18 offering unbundled network elements; and that
19 definition can be expanded to both recurring and
20 nonrecurring.

21 Q Now, shared costs are generally considered
22 to be recurring costs; isn't that correct?

23 A In many cases, correct.

24 Q And so by placing a shared cost component on
25 a labor cost for a nonrecurring activity is making a

1 recurring cost a nonrecurring cost; isn't that
2 correct?

3 A What we are doing is associating it with the
4 cost causer. The fact that you have a technician
5 performing the activity is why you have the shared
6 cost. So we have assigned it to the technician
7 performing the activity.

8 Q So then you're telling me when a technician
9 installs a service, that that technician causes the
10 incurrence of a supervisor's salary?

11 A First level, definitely, but that's in the
12 direct labor rate. In terms of the shared costs,
13 again, these shared costs are costs that are shared by
14 more than one element. All we have done in our study
15 is to allocate them as we deem appropriately using a
16 solid methodology to assign them to the cost causer.

17 Q Now, the nonrecurring costs that are
18 presented to this Commission support a nonrecurring
19 charge, correct?

20 A That's correct.

21 Q And the nonrecurring charge is an up-front
22 payment that the CLEC has to make before the CLEC
23 offers any of sort of service to a customer; isn't
24 that correct?

25 A That is correct.

1 Q Are you familiar with the LCSC?

2 A Yes.

3 Q And when there is an electronic order, the
4 LCSC results in manual activity only to the extent
5 that there is a problem with the service order; isn't
6 that correct?

7 A That is correct.

8 Q And that manual activity, as defined in
9 BellSouth's cost study, would be someone dealing with
10 the error on the service order, which might be
11 contacting the CLEC and saying "your order has an
12 error." Fair statement?

13 A That's a fair statement.

14 Q And the study assumes that that type of
15 error or fallout occurs 20% of the time; isn't that
16 correct?

17 A That is correct.

18 Q Now, BellSouth's study doesn't reflect the
19 fact that errors can be electronically referred back
20 to the ordering CLEC, does it?

21 A In the actual number that's provided, the
22 20%, it does imply to some degree that there could be
23 some electronic send-backs. This would still be the
24 ones that fall out, but it's not a hundred -- excuse
25 me -- the number does not reflect 100% that all

1 electronic orders are sent back to the ALEC.

2 Q In fact, it reflects that 20% of those
3 orders will be manually dealt with by BellSouth; isn't
4 that correct?

5 A That is correct.

6 Q Let me ask you -- and hopefully you have it
7 in front of you -- I'm looking at Exhibit 10, which is
8 a late-filed exhibit by Mr. Varner.

9 A I do not have Mr. Varner's late-filed
10 exhibits.

11 MS. WHITE: I'm sorry, Mr. Lemmer. Was that
12 2 or 10?

13 MR. LEMMER: Exhibit 10, and it should
14 have -- what I'm looking at has a cover letter dated
15 January 20th, 1998.

16 Q (By Mr. Lemmer) Do you see that?

17 A Yes.

18 Q And what I am looking at is Exhibit
19 Varner 2, and I'm looking at Page 1 of two.

20 A Okay. Exhibit 2, Page 1 of two, dated the
21 January the 13th?

22 Q I don't have a date on mine, but the heading
23 at the top says "Percent Rejected Requests."

24 A Okay.

25 Q Do you have that?

1 **A** Yes, I do.

2 **Q** And there was some discussion this morning
3 in Mr. Varner's testimony regarding this exhibit.
4 Were you present for that testimony?

5 **A** Yes.

6 **Q** Now, if you look down to the lower extreme
7 right-hand corner in the "Total" column and under the
8 column "Adjusted Flow-through," you see a figure of
9 92.7%. Do you see that?

10 **A** Yes.

11 **Q** And there was some discussion earlier that
12 the math may be incorrect. Do you remember that
13 discussion?

14 **A** Yes.

15 **Q** Well, by hand, I recalculated it, and that
16 number should be somewhat over 95%. Would you accept
17 that for purposes of discussion?

18 **A** Yes, for purposes of discussion.

19 **Q** Now, that Adjusted Flow-through column
20 presents a column relating to orders that would flow
21 through without any manual activity by BellSouth if
22 the order from the CLEC was correct; isn't that right?
23 And let me refer you to the next page and the last
24 footnote.

25 **A** Okay.

1 Q I'm sorry. Would you agree that that number
2 under the Adjusted Flow-through in the Total column
3 represents what would flow through without any manual
4 effort by BellSouth if the service order from the CLEC
5 were correct?

6 A I've not seen this report before, and I'm
7 not familiar with it, so I can only judge by that is
8 the statement that's on the assumption.

9 Q So then if errors in the service order were
10 to be rejected electronically by BellSouth so that it
11 went back to the CLEC for correction, BellSouth
12 projects that there will be a 92 or 95% flow-through;
13 isn't that correct?

14 A Based on this -- again, based what I read
15 here. I'm not totally familiar with it.

16 Q Well, this exhibit would indicate that the
17 20% assumed fallout rate in your study is incorrect;
18 isn't that right?

19 A Well, the 20% fallout assumes that up-front
20 systems would require the fallout before you even get
21 to this stage.

22 What we're looking at is the fallout that
23 results in the electronic interface stage, and within
24 three-year time frame that we're looking at for '97
25 through '99, our indications are that would be 20%.

1 So my understanding -- again, I'm not fully
2 familiar with all the numbers on here, but it would be
3 prior to the systems that's listed here. Those are
4 the electronic interface fallouts I'm talking about,
5 all the new systems that's being built today.

6 Q Now, do you have any understanding as to
7 what the current technological capability of these
8 types of systems are from the standpoint of
9 electronic, I'll call them, kick-out? They spot an
10 error, they refer it back to the ordering company.

11 A No, I do not.

12 Q Does the 20% that is reflected in the study
13 for the fallout rate consider the fact that there can
14 be electronic kick-outs and resolution by the ordering
15 company?

16 A My understanding, it does. That number is
17 provided by the LCSC organization to the cost analyst,
18 and my understanding is that based upon the time frame
19 that we asked them, '97 to '99, all the plans that
20 they had in place for providing electronic flow-back,
21 all of that was taken into consideration, and there
22 would still be 20% that needed to be handled.

23 Q Now, based on your understanding, is the
24 Varner Exhibit 2 in this Exhibit 10 consistent with or
25 contrary to the 20% in the cost study?

1 A Again, I'm not totally familiar with it. I
2 don't see that it's in -- or contrary to what I'm
3 saying, because based on this assumption, this
4 assumes -- again, the very last line -- this assumes
5 that the projected flow-through of the CLEC orders,
6 that the CLEC has already been removed from that.
7 That's not -- the 20% that I'm talking about I do not
8 see included in these numbers.

9 Q Now, also in the area of nonrecurring costs,
10 there are certain instances where there is travel time
11 calculated?

12 A Yes.

13 Q And drives the calculation of a cost,
14 correct?

15 A Correct.

16 Q And one aspect of the travel time relates to
17 the placement of cross-connects; isn't that true?

18 A Yes, travel to the -- in this particular
19 case we're talking about distribution plant
20 predominantly. So it's cross-connects at the feeder
21 distribution interface.

22 Q Now, isn't it true that -- well, let me
23 rephrase my question. BellSouth follows the policy
24 that we talked about earlier of dedicated outside
25 plant; isn't that correct?

1 A That is true, but the services we're
2 offering here -- in particular, loop distribution --
3 dedicated outside plant would not be appropriate
4 there, because dedicated outside plant means you're
5 connecting it all the way from the BellSouth central
6 office to the customer's premises.

7 Well, in this case we're going to only be
8 providing to the ALEC the distribution portion that
9 will then be cross-connected to the ALEC's cross-box
10 to get to the ALEC's feeder.

11 Q What about the loops that are costed in this
12 study? The cross-connects would stay in place for
13 those loops; isn't that correct?

14 A Oh, yes, for the ADSL and HDSL; that is
15 correct.

16 Q So there wouldn't be any travel relating to
17 those cross-connects, would there?

18 A There would be travel a certain percentage
19 of the time, because you would not have everything
20 dedicated to outside plant, and that's taken into
21 consideration.

22 Q Well, let me see if I understand, then. In
23 the situation where a service has been provided to a
24 customer, and that service is being switched over to a
25 CLEC, that loop is operational, correct? I mean, a

1 service, is being provided, correct?

2 A Yes.

3 Q And if the service is being provided, the
4 cross-connects are in place, correct?

5 A That is correct.

6 Q And when the cross-connects are in place, is
7 BellSouth going to go out into the field to remove
8 those cross-connects when a CLEC orders that
9 particular loop?

10 A No. That's what I was saying. We take into
11 consideration in the study a percentage of time that
12 we would have to travel and a percent of time we do
13 not.

14 The one thing I need to look at the study
15 probably to verify that is, in looking at the ADSL and
16 the HDSL, what has to be done in those particular
17 services is you have to have a service inquiry, and
18 you must be sure that that particular loop is able to
19 handle the electronics of ADSL and HDSL. So I need to
20 verify the amount of travel associated with that
21 particular loop.

22 Previously when I was talking about that you
23 would not dispatch, that was from my remembrance of
24 the 2-wire analog loop where dedicated outside plant
25 would be appropriate, and we only dispatch, I believe,

1 20% of the time on that one.

2 Q But the dispatch you just described does not
3 relate to cross-connects, does it?

4 A It relates to -- in the last explanation? I
5 mean, can you reword your question?

6 Q You gave an explanation as to there may be
7 travel relating to having to upgrade, or to upgrade
8 the wire to make it an ADSL compatible type loop, for
9 example; correct?

10 A Yes.

11 Q There would not be travel -- I mean, if that
12 loop was operational, the loop is operational, right?

13 A Yes.

14 Q And when it's operational, the
15 cross-connects are in place; isn't that correct?

16 A Yes.

17 Q Now, do you have Mr. Varner's revised
18 Exhibit AJV-1 available to you?

19 A I have at least -- yes, I believe I have it
20 all.

21 Q And we can simply look at the first page of
22 it to begin with. And under the middle column where
23 we're dealing with the nonrecurring costs that are
24 proposed -- and we can just look at the A.2.2 loop
25 distribution.

1 A Right.

2 Q 2-pair wire analog voice grade loop. There
3 is a nonrecurring cost specified for electronic of
4 \$396.69, correct?

5 A Correct.

6 Q Can you tell me how much of that amount
7 relates to activities and services provided by the
8 LCSC?

9 A Yes. I need to refer to the cost study to
10 do that. Excuse me one moment. (Pause) If you look
11 at -- let me talk about the --

12 Q What page of the cost study are you on?

13 A I'm on Page 1636 and also 1637. On
14 Page 1636 what we're talking about here is the TSLRIC
15 plus shared and common.

16 If you look under the third column of
17 numbers where it's total TELRIC, you'll see the
18 438.03. Okay.

19 Now, go to the next page, which is 1637.
20 This is each one of the work centers identified, and
21 in the next to the last column you will see the direct
22 costs for the first that we're dealing with. The
23 total there for the TELRIC is 409.71.

24 So looking at the second set of numbers,
25 they're divided up. You have like one category of

1 functions and then the second category. You'll notice
2 that under the service inquiry job function code 2300,
3 the customer point of contact is listed here as ICSC.
4 That is really the LCSC. The reason it was listed as
5 the ICSC is that's what it was originally called when
6 we started this particular analysis.

7 So associated with that, if you go over to
8 the next to the last column, you will see \$4.54. That
9 is the cost associated with handling the manual
10 service order by the LCSC.

11 Q Ms. Caldwell, the third item in this block
12 of numbers that you're talking about that has the
13 JFC 2300, that also relates to LCSC, doesn't it?

14 A Yes, it does. I was going to get to that.

15 Q I'm sorry.

16 A That one is the service inquiry where
17 they're actually taking the information and sending it
18 on to contact to see if there are facilities, and the
19 numbers associated there is 43.90, I believe.

20 Q Are there any other tests described on this
21 page relating to the LCSC?

22 A Let me just review them just to be
23 absolutely sure. (Pause) Not in this particular
24 section.

25 Let me just explain to you that the top

1 section up there is just to calculate the TSLRIC
2 portion, so the actual times would be repeated whether
3 it's TSLRIC or TELRIC.

4 Q So then looking at this particular UNE for
5 loop distribution 2-wire, of the \$409 TELRIC
6 nonrecurring cost, approximately 47, \$48 relates to
7 LCSC activity; is that correct?

8 A That's correct.

9 Q Do you know whether that relative
10 proportion, roughly, you know, 10, 12%, would hold for
11 the other UNES?

12 A No. It's not going to hold, because the
13 other UNES -- depending on what you're actually
14 discussing here, is when you're dealing with the
15 distribution or the ADSL or the HDSL loops, you could
16 have service inquiry.

17 When you move into the other services, such
18 as the DS-1, those activities would have different
19 work times, because the loops that we're looking at
20 here, for instance, like this distribution, it
21 requires a lot of more activity for service inquiry
22 and things of that type, because we're actually having
23 to see if the facilities are available and if they are
24 conditioned to provide the service.

25 So I feel that that percentage is a little

1 bit higher for this one, but I would have to look at
2 them to verify for each one.

3 MR. LEMMER: That's all I have. Thank you.

4 CROSS EXAMINATION

5 BY MR. ADELMAN:

6 Q Good afternoon, Ms. Caldwell, Mr. Zarakas.
7 I'm David Adelman. I represent MCI. Nice to see you
8 again.

9 A (Witness Caldwell) Good afternoon.

10 Q Let's start with you, Ms. Caldwell, and ask
11 you a few questions that follow up on some topics we
12 discussed during the discovery phase of this
13 proceeding.

14 You are sponsoring the cost model and cost
15 analyses which supports the rates and pricing related
16 to physical collocation, correct?

17 A Yes.

18 Q And we talked a little bit about the
19 application fee. What is the claimed cost associated
20 with the services related to the application fee for
21 Florida, the physical collocation application fee?

22 A You mean the value?

23 Q The costs. What does your study and
24 analyses show as the costs which support the proposed
25 rate for the application?

1 A I'm looking at the cost summary, which is
2 Page 3 of the summary. It's in Section 1 of P-1 of
3 the study.

4 This is the TSLRIC plus shared and common.
5 The application cost is \$7,186.

6 Q And that is, generally put, the cost of
7 providing an estimate for physical collocation to an
8 ALEC; is that correct?

9 A Yes.

10 Q Just so I understand, before an ALEC can
11 even know what it would cost for physical collocation
12 in a particular central office in Florida, that ALEC
13 must go out of pocket for at least \$7,000; is that
14 correct?

15 A Yes. That's the cost associated with
16 determining if there's space, and then what it would
17 cost or -- excuse me -- to determine an estimate of
18 what it would cost to provide that space.

19 Q What is the price? Is the price equal to
20 the cost in the case of the application fee? Do you
21 know?

22 A For physical it is the same.

23 Q Now, going beyond that \$7,000 application
24 fee, let's assume that the ALEC wants to collocate in
25 a particular central office. There are costs

1 associated with that, correct?

2 A Yes.

3 Q And included in that are the costs
4 associated with job functions performed by the
5 I-N-A-C, INAC, correct.

6 A That's correct.

7 Q What does that stand for, I-N-A-C?

8 A I believe it's interexchange network access
9 center.

10 Q Tell me what the service -- what services
11 are performed by the INAC group?

12 A One of their functions is to coordinate
13 among all the individual departments that would be
14 working on the collocated space, such as your
15 engineering group, your building group, your central
16 office. So they perform a coordination function is
17 one of the items that they do.

18 They also coordinate with the -- through the
19 marketing organization, but they coordinate with the
20 individual ALECs to determine what their requirements
21 are to be sure that we understand them and that we're
22 meeting those.

23 Q So it's a group of people, more than one
24 person, that coordinates other groups of people,
25 including engineers and marketing types, correct?

1 A Yes.

2 Q What are the costs, according to your study
3 and analyses, associated with the job functions
4 performed by the INAC group?

5 A I would need to look at the study. It will
6 take me just a minute.

7 Q Sure. In the interests of time, I'll take a
8 rough estimate.

9 A I'm sorry. I can't quite lay my hand on
10 that. I'm just trying to remember that the percentage
11 of time that would have been associated with them -- I
12 know they have a significant number of activities
13 associated with them. But I'm sorry; I can't put my
14 hand on it right now.

15 Q Is it more than \$1,000?

16 A Where I'm having some difficulty is the way
17 the particular cost study is laid out in naming the
18 functions. So maybe this will get to your point. In
19 other words, in just looking at that individual
20 center. The marketing cost is greater than \$1,000,
21 and that would include some of those activities that
22 we have been talking about.

23 Q How much greater than \$1,000?

24 A This one is 1,100.

25 Q Now, you said that would include --

1 A Oh. Excuse me. I'm sorry. That is the
2 TSLRIC number. So since we have been talking about
3 TELRIC, let me be sure we have the record straight.
4 That is about 1,500.

5 Q And you said that 1,500 includes some of the
6 costs associated with services performed by the INAC
7 but not all, correct?

8 A Yes. I'm just not quite sure how these
9 numbers are laid out. In the cost study on Page 1907,
10 it does have each one of the individual centers
11 pointed out. INAC is not listed separately. It
12 appears to be associated with some of these visits in
13 one of the job bands.

14 Q Just so I understand, then, if I wanted to
15 look at the cost study and determine what I'm paying
16 for and I wanted to see how much I pay for the
17 services performed by the INAC, I wouldn't be able to
18 do that, would I?

19 A Not from just this page. However, we have
20 provided data requests that detail each one of these
21 activities. So there is a cross-reference in the data
22 request.

23 Q You said you were looking at Page 1907; is
24 that correct?

25 A Yes.

1 Q The TELRIC number for the combined six job
2 functions described on that page equals to something
3 in excess of \$6,700; is that correct?

4 A Yes.

5 Q And that includes some coordinating
6 functions and marketing functions, correct?

7 A Yes, it does.

8 Q Now, is the cost associated with the INAC
9 and these marketing functions, the
10 67-plus-hundred-dollar cost, is that the same for the
11 first request for a particular central office as it is
12 for additional requests for that same central office?

13 A Yes, it is.

14 Q In other words, if MCI Metro were to request
15 physical collocation for the Hialeah central office,
16 they would incur -- or BellSouth claims there would be
17 this \$6,700 incurred for these coordinating functions,
18 correct?

19 A Yes.

20 Q And then if the next week AT&T made a --
21 made the same request for physical collocation in the
22 Hialeah central office, BellSouth claims there would
23 be the same \$6,700 costs incurred, correct?

24 A Yes. We would coordinate the CLEC's request
25 and, again, in the building be sure this facility is

1 available.

2 Q So would you agree, then, that it is
3 BellSouth's position that there are no economies
4 realized as a result of multiple requests for physical
5 collocation?

6 A That is correct, because each request is
7 unique.

8 Q But the INAC, for example, coordinates with
9 engineers, and engineers go to the Hialeah central
10 office and examine the space as part of that initial
11 collocation request, correct?

12 A Yes.

13 Q And then a week later, this time acting on
14 AT&T's request, they go to that same central office
15 and look at that same space, the same engineers, but
16 it still costs the same; is that correct?

17 A Yes. They go back to inspect to be sure
18 that their facility is still available and exactly
19 where that collocater's equipment would be positioned,
20 depending on what that order --

21 Q But you have assumed -- I'm sorry.

22 A I was just saying, depending on what the
23 CLEC was going to place.

24 Q I understand. And the same would be the
25 case for the third, fourth, fifth request for the same

1 central office, correct?

2 A Yes.

3 Q So is it fair to say that BellSouth assumes
4 no economies of scale and scope when it comes to job
5 functions related to physical collocation?

6 A For the application, that's correct.

7 Q Well, we're past the application now. We're
8 going forward with the activities of the INAC and in
9 the marketing group, et cetera; correct?

10 A Okay.

11 Q Same answer; no economies of scale and
12 scope?

13 A In terms of the rate elements, such as your
14 cable support structure, your power, those particular
15 elements that have costs associated with them, those
16 are unique for each individual collocator.

17 The one economy of scale or scope that you
18 would incur in any of these items would be where we
19 applied utilization factors that's based on sharing
20 with multiple collocators, as well as sharing with
21 BellSouth.

22 In terms the ICB -- which I did not prepare
23 the costs for; I only know some information about
24 it -- there is -- when the actual wall that may
25 separate BellSouth from the collocators is built, that

1 is prorated. So that must be considered between more
2 than one locator.

3 Q I understand. You're getting a little bit
4 ahead of me. We'll get to that. Right now I'm
5 talking about the marketing and engineering
6 coordinating function. I'm talking about before there
7 is any space preparation.

8 A Okay. In that case they would be the same
9 for every collocator.

10 Q Meaning there are no economies of scale and
11 scope assumed for purposes of BellSouth's
12 determination of costs associated with those
13 functions, correct?

14 A That is correct. Every collocator is
15 unique.

16 Q But not -- when you say every collocator is
17 unique -- before we leave this point -- I'm talking
18 about the same central office, and a request that
19 comes in, let's say, on consecutive days; MCI on day
20 one, AT&T on day two. They both want physical
21 collocation. They both want to do it in the Hialeah
22 central office. There's no savings associated with
23 those two virtually identical applications for that
24 same central office; is that your assumption?

25 A Yes.

1 Q You referred to ICB. What does ICB stand
2 for?

3 A Individual case basis.

4 Q And is it correct that BellSouth is urging
5 this Commission to adopt a policy whereby the charges
6 for space preparation associated with physical
7 collocation are set at ICB, individual case basis?

8 A Yes. I believe Mr. Varner discussed that
9 earlier.

10 Q And you are the witness responsible for
11 providing cost support associated with physical
12 collocation rates including space preparation; is that
13 correct?

14 A We did not conduct a cost study for space
15 preparation because it would be for each individual
16 customer. So I do not -- I am not sponsoring a cost
17 study for that one.

18 Q And just to be clear, BellSouth is not
19 sponsoring a cost study through any other witness in
20 this proceeding which provides costs associated with
21 space preparation for physical collocation; is that
22 correct?

23 A That is correct. It would be handled on a
24 case-by-case basis.

25 Q But there are witnesses appearing later in

1 this proceeding for other parties that have provided
2 cost analyses associated with space preparation.

3 You're aware of that, aren't you?

4 A Yes, I am.

5 Q So you'd agree, then, to the extent there is
6 a study or analyses in the record, it's not one
7 provided by BellSouth, correct?

8 A Yes, I would agree.

9 Q Let's move to nonrecurring charges, and what
10 I'd like to do is talk about one job function by way
11 of example.

12 I recognize that there are many nonrecurring
13 costs that BellSouth claims are associated with the
14 elements which are the subject of this proceeding, and
15 I want to talk about job function code 2300. You're
16 familiar with that one, correct?

17 A Yes.

18 Q And can you just describe briefly for the
19 Commission what is encompassed or what is covered by
20 job function code 2300?

21 A The 2300 job function code is the job
22 function code associated with the service
23 representative in the LCSC, which stands for the local
24 carrier service center; and their function is to take
25 service orders over the phone.

1 They also, if there is a fallout from the
2 electronic interface, they would handle that fallout
3 by calling the ALEC, getting the information, and in
4 some cases talking with the ALEC and the ALEC's
5 customer to process the order.

6 They also talk with the customers on a
7 going-forward basis about -- and in this case the
8 customer would be the ALEC -- the ALEC about any
9 service changes, any questions the ALEC could have
10 about their individual customers. That's their
11 activities.

12 Q So it's correct that ALECs placing orders
13 electronically would have some interaction with the
14 LCS, correct?

15 A Yes.

16 Q That is where there is fallout or some kind
17 of error in BellSouth and there is no electronic way
18 of notifying the ALEC that the error in the order has
19 occurred, correct?

20 A That is an example, yes.

21 Q And BellSouth -- the studies you're
22 sponsoring assume a 20% fallout rate. I think you
23 said that in response to a question by Mr. Lemmer,
24 correct?

25 A Yes.

1 Q Now, for job function code 2300 the LCS
2 functionality, tell me what is the charge or what is
3 the cost which you have included for the NRC
4 associated with 2-wire loop distribution for functions
5 performed under job function 2300 by that room full of
6 people?

7 A Okay. I think that was the question we
8 talked about earlier.

9 Q It is. And if it's helpful, you might want
10 to refer to your Late-filed Deposition Exhibit 18.
11 That's the one you filed today.

12 A Yes. Do you have the number, Mr. Adelman?

13 Q The number? I'm sorry. My pages aren't
14 numbered.

15 A I've got the late-fileds.

16 Q My pages aren't numbered. It's Item No. 18.

17 A Oh. That's fine.

18 Q Have you located that document?

19 A Yes. Thank you.

20 Q And you provided the information in response
21 to that request, correct?

22 A Yes.

23 Q And is it correct that as reflected in this
24 document, for 2-wire loop distribution, BellSouth in
25 your study has assumed and thus charged ALECs, or

1 proposes to charge ALECs, for .05 hours, or three
2 minutes, for each loop order, correct?

3 A For each loop on the order.

4 Q Okay. In other words, it's calculated on a
5 per-loop basis, not a per-order basis; correct?

6 A That is correct.

7 Q So you would assume three minutes of work by
8 this room full of people for an order of one loop,
9 correct?

10 A Yes. That three minutes is calculated by 15
11 minutes to handle the order times a 20% fallout.

12 Q I understand. And if there was an order by
13 an ALEC, such as MCI, for 20 loops, one order, 20
14 loops, how much time have you assumed for purposes of
15 charging in our example MCI for processing that order?

16 A We have assumed in the cost study three
17 minutes per loop. So that would be three minutes on
18 the first and then three minutes for each additional,
19 which would be -- in this particular case I believe
20 you said 20.

21 Q Yes.

22 A So it would be 60 minutes.

23 Q So it would be one hour. In both cases, in
24 the order for one loop and the order for 20 loops, it
25 was one order, just to be clear; correct?

1 A In your example, yes.

2 Q So is it fair to say that for purposes of
3 the job function 2300 costs associated with 2-wire
4 loop distribution, BellSouth has not assumed any
5 economies of scale or scope associated with processing
6 those orders?

7 A Yes. The information from the LCSC provided
8 to the cost organization was that for each item on the
9 order it would take them 15 minutes to clear that
10 particular fallout.

11 Q Now, let's look at the late-filed data
12 requests, or deposition request. What you were asked
13 to do there is assume that there were economies of
14 scale and scope; in other words, assume that the job
15 function 2300 services could be performed on a
16 per-order basis versus a per-loop basis; is that
17 correct?

18 A Yes.

19 Q And you calculated the difference, or I'll
20 call it the savings, associated with that changed
21 assumption, correct?

22 A That is correct.

23 Q And what is the difference, or the savings
24 as I'll call it, if you changed that assumption?

25 A All right. For the distribution, the A.2.2

1 for the first there is no change because that would
2 still include the three minutes.

3 You see it in the additional in the far
4 right-hand column of -- this is again Item No. 18,
5 Page 1 of one, is \$14.55.

6 Q And that is a savings of \$14.55 if we simply
7 assume that the work is performed on a per-order
8 versus per-loop basis, correct?

9 A That is correct.

10 Q What's A.11.1? Tell me what that is. That
11 is the analog voice grade loop and cost element,
12 unbundled two-wire loops, incremental cost manual
13 service order, correct?

14 A (Witness Caldwell) Yes.

15 Q And what is the savings there? If we just
16 change that one assumption, we assume that it's going
17 to be processed manually on a per order versus per
18 loop basis?

19 A For the first there is no difference, for
20 the additional it's \$11.64.

21 Q And would you agree that there are other
22 NRCs, or nonrecurring charges, where BellSouth has
23 assumed that orders are processed by BellSouth
24 personnel on a per loop or per element basis as
25 opposed to a per order basis?

1 A Yes, there are certain items that are
2 required, for instance, in terms of some of your
3 engineering, it's required to engineer each loop, that
4 type of thing.

5 Q And I know we talked about some of those
6 during your deposition, and you indicated to me that
7 Witness Landry would be a good person to talk to about
8 those?

9 A Yes. Excuse me. In particular for the work
10 times assigned to each one of those work centers.

11 Q Let's talk about switching a little bit.

12 A Okay.

13 Q Vertical features, what are vertical
14 features? Can you tell the Commission what vertical
15 features are, please?

16 A They are a software generated functions of
17 the switch that provide additional capabilities to
18 your line. Falling in that category are your custom
19 calling features, such things as three-way calling,
20 call waiting, things of that type.

21 Q And these are features that are built into
22 the switch or port for purposes of this proceeding,
23 correct?

24 A They are -- they have been identified in the
25 cost for each item separately for each feature, and

1 then they would be associated overall with the port in
2 the end when Mr. Varner establishes his rates.

3 Q Right. And you are the witness responsible
4 for providing the Commission with cost support in
5 support of the rates Mr. Varner is sponsoring,
6 correct?

7 A That is correct.

8 Q And you relied on the "SCIS", or SCIS model,
9 in part, for costs associated with the port, including
10 vertical features, correct?

11 A Yes. We use the SCIS which is a model
12 provided by Bellcore. We use the model office portion
13 as well as the intelligent network portion referred to
14 as SCIS/IN.

15 Q But the SCIS and the SCIS/IN model do not
16 provide, in BellSouth's opinion, the full amount of
17 costs associated with the switch because BellSouth
18 alleges there are additional costs associated with
19 these vertical features, correct?

20 A I'm not sure I follow you. What we have in
21 the cost study is we have -- from SCIS/IN we have the
22 cost associated with the switch itself, the investment
23 in the processor. Then in addition to that you have
24 right-to-use fees, which are fees you pay for use of
25 the software, and that is calculated separately.

1 SCIS/IN does not calculate right-to-use fees which are
2 your expensed items.

3 Q Okay. That's all I'm asking. BellSouth
4 alleges that the costs associated with the port are
5 covered in the SCIS model and include these RTU fees
6 which are not covered by the SCIS models, correct?

7 A Yes.

8 Q And has BellSouth provided detailed cost
9 analysis and information associated with the RTU fees
10 to the Commission?

11 A We have provided a list of the right-to-use
12 fees, which features they are associated with, and
13 then we have converted them to cost for each one of
14 the items.

15 Q When you say a list of RTU fees, have you
16 explained how the RTU fees are allegedly assessed on
17 BellSouth? And by this, I mean have you made the
18 distinction between RTU fees which are -- which you
19 claim are incurred by BellSouth on a per use basis as
20 opposed to assumed loaded into the port?

21 A I don't think I quite follow the question.

22 Q Okay. Let me rephrase it then. How many
23 vertical features are there?

24 A Approximately 28.

25 Q Okay. And for those 28, does BellSouth

1 claim there's an RTU or an additional cost for all of
2 them?

3 A To the best of my memory, yes.

4 Q Okay. And we'd be able to look in your cost
5 study and determine whether that is correct or not?

6 A Yes. For each individual feature the
7 right-to-use cost is identified separately.

8 Q Okay. And these RTUs, or right-to-use fees
9 you claim are fees charged by the switch vendors to
10 BellSouth, correct?

11 A For the software, correct.

12 Q And you agree that in some cases the -- even
13 BellSouth claims that the RTU fees are only charged by
14 the vendor if the vertical feature is used or engaged,
15 activated. Is that correct?

16 A It depends upon the switch. For the
17 right-to-use feature associated with the switch,
18 excuse me -- for the right-to-use features that we
19 have associated with the features, each one of these
20 is paid when a switch is activated with that
21 particular package that includes that right-to-use
22 fee. And that is different depending upon the switch
23 type, whether it be a 5ESS, which is a Lucent switch,
24 or if it be the DMS-100, which is the Northern Telecom
25 switch. And we handle the cost associated with the

1 right-to-use fees uniquely. In particular, in the 5E,
2 when you buy the switch and you equip it, there is a
3 certain amount that you pay per line, and it includes
4 various features. With that we assign that cost to
5 the line, and it is identified in the port studies
6 separately.

7 For the DMS-100 that is definitely different
8 in how the vendor charges for the right-to-use fees.
9 Each one of the packages that we pay for is included
10 on the -- excuse me, in the feature study for each
11 individual feature.

12 Q Okay. Let's talk about the DMS-100 switch.
13 There are just two switches that you assume for
14 purposes of your study?

15 A Yes. In our study we only use the two
16 switches I mentioned.

17 Q Okay. The DMS you said -- for the DMS, at
18 least, in layman's terms is it fair to say that the
19 software associated with the vertical feature is
20 included with the switch? In other words, the
21 assumption is that it's installed in the port and is
22 available for use by BellSouth?

23 A Unless I got my switches backwards, which I
24 probably need to check, the 5E comes with the package
25 associated with the lines. You pay for it on a per

1 line basis.

2 Q And for the 5E are you proposing that
3 pricing or rates be based not only on what the SCIS
4 model generates but also on the RTU adder?

5 A Yes, we have that number on per line basis,
6 and we amortize it over the life of the switch, which
7 in this case is going to be ten years.

8 Q Okay. And for the DMS-100 you allege that
9 you get a switch, but you don't get the software
10 associated with the vertical features; is that
11 correct?

12 A You pay for packages that include certain
13 groups of vertical features, and there are several
14 packages listed in the cost study.

15 Q And when BellSouth pays for these
16 packages -- well, does BellSouth pay for the packages
17 and fully load all of their switches today?

18 A I cannot answer for every feature, but for
19 the predominant features such as your call waiting,
20 your three-way calling, we do equip the switches when
21 they are placed with those particular functions.

22 Q And that's part of the investment in the
23 switch on BellSouth's books, correct?

24 A No, it's not part of the investment. It is
25 an expensed item, so it's handled separately. It's

1 never included in the investment for that switch.

2 Q Mr. Zarakas, I'll talk to you for you few
3 minutes.

4 I listened to your summary, and tell me if
5 this is a fair characterization. You claim that the
6 Commission needs to decide just how hypothetical a
7 study should be used for purposes of determining UNE
8 costs in Florida; is that correct?

9 A (Witness Zarakas) That's correct.

10 Q And you claim that the BellSouth study
11 sponsored by Ms. Caldwell is the lesser of the
12 hypothetical study. Is that the distinction you're
13 drawing?

14 A Lesser compared to what?

15 Q I don't know, that's what I'm asking you.
16 What have you compared the BellSouth study to?

17 A In general looking at other models that have
18 been brought forth by industry in general.

19 Q But you haven't done an in-depth analysis of
20 any other forward-looking study for a
21 telecommunications network, have you?

22 A We've looked at, I think, most of the
23 studies and models that have been used in industry;
24 most of the models and studies that have been used in
25 this jurisdiction and others. But as far as a

1 detailed in-depth look at all of the nuances of them,
2 no, we have not done that.

3 Q Can you please identify a single study for
4 which you or your firm spent more than, say, 200 hours
5 looking at other than the BellSouth study?

6 A I don't think we tracked it by hours, but
7 I'm going to say we probably didn't look at any study
8 for more than 200 hours.

9 Q You have, I assume, looked at the BellSouth
10 study for more than 200 hours?

11 A Oh, yes.

12 Q Now, of course, you didn't conduct an
13 engineering review of that study, did you?

14 A That is correct.

15 Q What you did was you looked at information
16 provided to you by BellSouth for purposes of your
17 verification, correct?

18 A Well, I think that you might have
19 mischaracterized our involvement with the BellSouth
20 model. We were involved in developing the BellSouth
21 model, working with personnel from BellSouth to put
22 the TELRIC calculator and aspects of the cost study
23 together. I think what you were referring to at the
24 end there was the information that actually went into
25 that cost study came from BellSouth personnel.

1 Q Okay. Thank you. That is what I was
2 referring to. The inputs, I'll call them.

3 A That's right.

4 Q You did not do any review of the inputs put
5 forward by BellSouth before this Commission that was
6 independent of BellSouth, did you?

7 A That's a fair characterization. We
8 developed guidelines. We spoke with all of the
9 subject matter experts to make sure that they were
10 taking a forward-looking approach. But we did not
11 bring our own engineers in, our own network people, et
12 cetera, to come up with their own independent numbers.
13 BellSouth experts are the ones that came up with the
14 inputs.

15 Q Well, not even talking about bringing in
16 your own engineers and looking at it, you didn't
17 communicate with anyone outside of BellSouth for
18 purposes of verifying those inputs, did you?

19 A That's right. We used BellSouth experts.
20 That's what I meant to imply there.

21 MR. ADELMAN: I have no further questions.
22 Thank you. Thank you.

23 CHAIRMAN JOHNSON: All right.
24
25

1 **MR. SELF:** Yes, I have some questions.

2 **CROSS EXAMINATION**

3 **BY MR. SELF:**

4 **Q** Mrs. Caldwell and Mr. Zakarias, my name is
5 Floyd Self, and I'm representing WorldCom. If I could
6 first ask Mr. Zakarias --

7 **A** (Witness Zarakas) It's a tough name. It's
8 actually Zarakas.

9 **Q** I'm sorry. That's why I'll only ask you one
10 question, then. (Laughter)

11 Does BellSouth Corporation or any of its
12 subsidiaries have any financial interest or other
13 economic or controlling interest in Theodore Barry and
14 Associates?

15 **A** No.

16 **Q** Okay. And thank you.

17 Ms. Caldwell, I have that right, yes?

18 **A** (Witness Caldwell) Yes.

19 **Q** I want to follow up on some of what, I
20 guess, got started with Mr. Varner earlier. And I'll
21 tell you up front what I'm ultimately trying to get
22 to, if that will help in the questions that I'll ask
23 you. And what I want to do is identify any electronic
24 and manual order-taking costs that may be included on
25 Exhibit AJV-1. And do you have the revised AJV-1

1 handy?

2 A Yes.

3 Q Okay. The first thing I'd like to ask you,
4 just for illustrative purposes, is if you could,
5 please, identify in cost study, the pages of the study
6 that relate to the TSLRIC, plus shared and common
7 costs, that relate to the two-wire ADSL loop that
8 shown on Page 1 of AJV-1.

9 A You said the nonrecurring?

10 Q Yes.

11 A Okay. Give me just one moment. For
12 reference let me be sure I'm talking about the correct
13 numbers here. We're talking about element A.6.1 the
14 manual of \$661.10. Is that correct?

15 Q Yes. That one as well as the 619.76 in the
16 electronic column.

17 A All right. The 661.10 is found on
18 Page 1657, and the complete breakdown of the numbers
19 that are used to develop the \$661.10 is actually found
20 on Page 1658, which is the next page that lists the
21 centers. Okay.

22 Q Thank you. And now the electronic?

23 A The electronic is actually calculated by
24 subtracting the manual from the \$661.10. And the
25 amount to subtract, the input sheet is Page 688.1,

1 that provides the breakdown of the work time --

2 (Pause)

3 Let me check one thing to give you another
4 page reference, please.

5 Q Sure.

6 A All right. The amount that is subtracted is
7 for 2-wire loop which we'll be talking about here in
8 terms of 2-wire, should be \$41.34. And that's
9 calculated on Page 1670.0. Give me just a moment,
10 please.

11 (Pause) Yes, that is the correct page.

12 Q Okay. If you could just walk me through the
13 calculations so I can be certain that I understand how
14 we went from manual to electronic.

15 A Okay. All right. First of all, let's talk
16 about the manual.

17 Q Okay.

18 A All right. Let's turn to Page 1658. I'm
19 going to keep referencing back to the numbers so that
20 we're all together.

21 Q That will be fine.

22 A We're talking about the number on AJV-1 of
23 \$661.10.

24 Q That's correct.

25 A That number is found on Page 1657. It's in

1 bold print about the middle of the page under TELRIC.
2 Move up to the top of that column, and you see the
3 number \$618.37.

4 Q Yes.

5 A Okay. Now go to the next page which is
6 1658. This is where that number is developed. Look
7 at the bottom section numbers, second from the last
8 column, you see the \$618.37.

9 Q Okay.

10 A That number is actually calculated on this
11 page, and I'll not talk through all of it, but I'll --
12 let me see if this will work.

13 For each work center that's listed over on
14 the left, you will see the job function code of that
15 work center, you will see the center that is actually
16 performing the activity. And, again, I mentioned
17 earlier while testifying that the ICSC, you need to
18 think of that as the LCSC; that's simply a name change
19 of the center. Under the installation, that is the
20 work time in hours that that center would be involved,
21 and we're talking about manual. That is multiplied
22 times your labor rate which is four columns over.

23 The disconnect, which is first, is the third
24 column over because we're just talking about the first
25 so far, you have the disconnect work time. As you can

1 see, not all centers are included in disconnect. The
2 disconnect work time is multiplied times the labor
3 rate, and a discounted disconnect factor is applied.
4 That factor is found in -- it's the tenth column over.
5 And that's to account for the fact the work is
6 performed in the future, but we're actually
7 determining it up front. Okay.

8 So at this point you multiply your labor
9 time times your labor rate for installation. You
10 multiply your disconnect time times your labor rate,
11 apply the disconnected disconnect factor, add the two
12 numbers together, and the second to the last column
13 includes the cost that would be attributed or caused
14 by each one of these centers.

15 Q Okay. And if I understand correctly, the
16 JFC code, 2300, those are the ones that pertain to the
17 LCSC?

18 A That is correct.

19 Q And with respect to the 2-wire ADSL loop,
20 there are actually three different amounts. If we
21 were simply trying to pull out the LCSC cost, we would
22 have to add on this particular sheet three different
23 lines in order to get the total LCSC cost that's
24 reflected on this sheet for ADSL.

25 A In terms of looking at the entire center,

1 that is correct. Those three numbers would represent
2 the total cost associated with the LCSC.

3 Let me explain that earlier I mentioned the
4 first item here that has the .08 hour, that is the
5 cost really associated with the original service
6 order. There is some additional service inquiry, that
7 is because you're seeing if the facilities are
8 available in this particular center. But they are all
9 performed by the LCSC personnel.

10 Q Okay. Just so I understand that last
11 comment, what you're saying is that there are some
12 LCSC functions that are not associated with service
13 ordering; is that correct?

14 A Yes. You have a service order and the
15 individual will be working on the service order, but
16 it's not just taking the service order. That's the
17 distinction I'm trying to make. You have time
18 associated with taking the order from the customer,
19 but then there is additional service inquiry beyond
20 that when the order is passed on to other centers to
21 see if the facilities are available. That's just the
22 distinction between the two work activities.

23 Q Okay. All right. So that's how we get the
24 number ultimately that appears on AJV-1 in the manual
25 column, the last column on Page 1 there, correct?

1 A Yes.

2 Q All right. And is the difference with
3 respect to the 661.10 that appears in the manual
4 column and the 619.76 that appears in the electronic
5 column solely reflected by the difference of these
6 three 2300 JFCs?

7 A In fact, it's normally just the first item
8 that's listed here. What you're doing is you're
9 taking the \$661.10 and subtracting \$41.34, and that
10 number 41.34 is rate element A.11.1 that's listed on
11 the cost summary. That number is calculated on
12 Page 1670.1.

13 Q This \$41.34 that appears on Page 1670.1.

14 A Yes.

15 Q Does that always reflect the difference
16 between the numbers in the electronic and manual
17 column for all of the rates that appear on AJV-1?

18 A No. There is a different number for each
19 individual center.

20 Q And why is that?

21 A Well, it depends upon the activities and the
22 original amount of time that was associated with this
23 item. What you're dealing with here is A.11.1 is the
24 unbundled 2-wire loop. So for any 2-wire loop, that
25 would be the costs that you would be subtracting. So

1 this we're talking about is the ADSL, which is a
2 2-wire loop. But there are other rate elements in
3 here, such as ports, et cetera, that would have
4 different work times.

5 Q Okay. And the basis for the \$41.34 that
6 appears on Page 1670.1, backing up, there's a shared
7 cost here of \$8.77, approximately, and then a direct
8 cost of 29.90, approximately.

9 A Yes.

10 Q Where did those two numbers come from?

11 A The next page, 1670.2. Looking at the
12 bottom set of numbers, the second to the last column,
13 you'll see the \$38.67.

14 Q Yes.

15 A And then directly above that you will see
16 the \$29.90.

17 Q Okay. So am I correct in saying that with
18 respect to revised Exhibit AJV-1 the difference
19 between the number 661.10 in the manual column and the
20 619.76 in the electronic column solely reflects the
21 difference between the manual service order taken; is
22 that correct?

23 A That is correct.

24 Q And would that statement be true with
25 respect to all of the other prices contained on

1 Exhibit AJV-1?

2 A Yes. The methodology is identical.

3 Q The methodology is identical. The numbers
4 are different because the inputs are different?

5 A Yes.

6 Q All right. Give me just a moment here,
7 please. (Pause)

8 All right. If I'm ultimately trying to get
9 to the point of identifying for each of the rate
10 elements that appear on AJV-1, this manual cost, at
11 the moment there's not one convenient place to go find
12 that number, correct? Let me try again.

13 A Repeat your question.

14 Q Let me try again.

15 If I just subtract the electronic -- the
16 number appearing in the electronic column from the
17 corresponding number appearing in the manual column, I
18 will have captured all of the cost that's associated
19 with the manual service order-taking; is that correct?

20 A For manual service order-taking, yes,
21 associated with the LCSC.

22 Q Okay. With respect to the electronic
23 column, are there any manual service order taking
24 costs for LCSC that are included in that column?

25 A There are no manual service order taking

1 activities. There is a cost associated with fallout.
2 The 20% that I was talking to Mr. Adelman about, that
3 20% is included in the electronic, which is the three
4 minutes per order that we discussed earlier.

5 Q Okay. Just a moment please.

6 MR. SELF: Thank you very much.

7 WITNESS CALDWELL: You're welcome.

8 CHAIRMAN JOHNSON: We're going to take a
9 15-minute break, and then we'll begin with Staff's
10 examination.

11 (Brief recess.)

12

- - - - -

13 (Transcript continues in sequence in

14 Volume 4.)

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