BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of	DOCKET NO. 990649-TP
INVESTIGATION INTO PRICING OF UNBUNDLED NETWORK ELEMENTS.	

****
* *
* ELECTRONIC VERSIONS OF THIS TRANSCRIPT *
* ARE A CONVENIENCE COPY ONLY AND ARE NOT *
* THE OFFICIAL TRANSCRIPT OF THE HEARING *
* AND DO NOT INCLUDE PREFILED TESTIMONY. *
* *
****

VOLUME 18

Pages 2842 through 3027

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN J. TERRY DEASON COMMISSIONER E. LEON JACOBS, JR. COMMISSIONER LILA A. JABER
DATE:	Friday, October 20, 2000
TIME:	Commenced at 10:00 a.m. Concluded at 10:40 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR FPSC Division of Records & Reporting Chief, Bureau of Reporting (850) 413-6732

APPEARANCES:

(As heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

P R O C E E D I N G S

CHAIRMAN DEASON: Call the hearing to order.

UNIDENTIFIED SPEAKER: Hi. I would like to patch into the hearing.

CHAIRMAN DEASON: Okay. Well, we are just getting started. If you will wait just a moment we will give you an opportunity to identify yourself.

UNIDENTIFIED SPEAKER: Thank you.

CHAIRMAN DEASON: Staff, could we have the notice read, please.

MS. CALDWELL: Yes, sir, Commissioner. Notice was given in the October 13th, 2000, Florida Administrative Weekly of the continuation of hearing in Docket Number 990649, investigation into pricing of unbundled network elements to be held at this time and place for the purpose as set forth in the notice.

CHAIRMAN DEASON: Thank you. What I will do is I will take appearances of folks that are here physically in the room. And when we exhaust those, then we will take those who are participating by telephone.

MR. GROSS: Good morning. I'm Michael Gross representing the FCTA.

MR. FONS: Good morning, Commissioners. I'm John Fons with the Ausley, McMullen law firm representing Sprint.

MR. MELSON: Richard Melson of Hopping, Green, Sams, and Smith representing Rhythms Links and WorldCom.

MR. SELF: Floyd Self of the Messer, Caparello, and Self law firm representing AT&T.

MS. McNULTY: Donna McNulty representing WorldCom.

MR. McGLOTHLIN: Joe McGlothlin for the FCCA and also for Z-Tel Communications.

MS. KAUFMAN: Vicki Gordon Kaufman of the McWhirter, Reeves law firm on behalf of Covad Communications and BlueStar Networks.

MR. DUNBAR: Mr. Chairman, Peter Dunbar of the Pennington firm, Time Warner Telecom.

MS. CALDWELL: Diana Caldwell, Florida Public Service Commission staff, and Wayne Knight also for the staff.

CHAIRMAN DEASON: We will now take appearances for individuals who are participating via telephone.

MR. SAPPERSTEIN: Good morning, Chairman. Scott Sapperstein on behalf of Intermedia Communications.

CHAIRMAN DEASON: Okay, thank you.

MR. LARO: Angel Laro (phonetic) on behalf of the Bosico Group.

CHAIRMAN DEASON: I'm sorry, could you repeat that.

MR. LARO: Angel Laro on behalf of the Bosico Group.

CHAIRMAN DEASON: Okay, thank you.

MR. LARO: Thank you.

CHAIRMAN DEASON: I'm a little -- I didn't understand who you are representing. Have you participated in this hearing before?

MR. LARO: No, I just received notice. I just wanted to listen in.

CHAIRMAN DEASON: I'm sorry?

MR. LARO: I just received notice via fax, and I just called in to listen in on the hearing.

CHAIRMAN DEASON: Oh, you are just listening?

MR. LARO: Yes, sir.

CHAIRMAN DEASON: Okay, very well. Glad to have you.

MR. LARO: I will not be participating.

CHAIRMAN DEASON: Okay. You are not actually making an appearance as a counsel of record.

MR. LARO: No, sir.

CHAIRMAN DEASON: Very well. Other participants?

MR. EDENFIELD: We have Kip Edenfield representing BellSouth.

CHAIRMAN DEASON: Okay.

MR. SLOAN: It's Mike Sloan representing Broadslate Networks, Incorporated, Cleartel Communications, Incorporated, and Florida Digital Network, Incorporated.

CHAIRMAN DEASON: Did someone just join us or did someone just leave? Anyone else? Apparently not. Staff, are you aware of any other participants by telephone that we are waiting for a connection?

MS. CALDWELL: No, sir, I'm not.

CHAIRMAN DEASON: Okay. Very well. Preliminary matters.

MS. CALDWELL: Yes, sir. There are several outstanding motions or issues that need action by the Commission. On October 19th, 2000, Verizon filed a motion to withdraw its cost studies, testimony, and exhibits at the request of staff. Staff believes that by granting the motion the record would be correct. And we would recommend the motion be granted.

CHAIRMAN DEASON: Any objections? Hearing no objection, show then that that motion is granted. What about the situation for Sprint?

MS. CALDWELL: Sprint, we will take care of that just a little bit later, but I think Mr. Fons is prepared to read the corrections into the record.

CHAIRMAN DEASON: Very well. Mr. Fons, when the

time is right just let me know. Other preliminary matters?

MS. CALDWELL: Yes, sir. Pursuant to the revised order establishing procedure, briefs were due on October 16th. With that time having passed staff believes that the briefs should be due on November 13th, 2000.

CHAIRMAN DEASON: You mean they didn't file their briefs when we told them to?

MS. CALDWELL: They did not.

CHAIRMAN DEASON: I tell you. Okay. November the 13th is the recommended briefing schedule. Any objections? Hearing no objections, very well, November 13th then would be the due date for briefs. Other matters?

MS. CALDWELL: Yes, sir. On October 9th the coalition had filed an emergency motion requesting various rulings related to the continuation of the hearing. Since that time the concerns have been worked out. And by letter dated October 16th, the coalition asked that its motion be withdrawn. And staff recommends allowing the motion to be withdrawn.

CHAIRMAN DEASON: Very well. Show then that that motion is granted and withdrawal will be allowed. Other preliminary matters?

MS. CALDWELL: The last one for staff would be

we have requested and e-mailed the parties to add the press release of the FCC's forthcoming order on multi-tenant environments to be added to the official recognition list, and staff believes that none of the parties have had an objection. So we ask that that also be added to the official recognition list.

CHAIRMAN DEASON: I had inquired of staff earlier about the advisability of taking official recognition of a press release. Staff's concern was that the timing was such that this may be the best alternative. So I am going to ask are there any objections to the Commission taking notice of a press release?

MR. MELSON: No, sir. But we would not have objection to taking notice of the order when it is issued.

COMMISSIONER JACOBS: Yes, I think that would be better.

CHAIRMAN DEASON: Okay.

MS. CALDWELL: That would be preferable to staff, as well.

CHAIRMAN DEASON: So do you still want the press release and just follow-up with the order, or how do you want to do that? When is the order anticipated?

MS. CALDWELL: I mean, it is supposed to be coming within the next several weeks. However, sometimes it doesn't come out. So --

CHAIRMAN DEASON: Well, I'm not so sure that if the order does not come out how you actually can rely on a press release. I'm looking for guidance. I mean, if there are no objections and everyone is comfortable with it, I mean, I will allow it. But it just seems like it is a little unprecedented.

COMMISSIONER JABER: May I ask staff a question, Mr. Chairman?

CHAIRMAN DEASON: Surely.

COMMISSIONER JABER: Does the FCC make a decision, an open decision that was noticed and -- is there a decision that we can reference as opposed to a written order?

MS. CALDWELL: All that I am aware of is this press release that is indicating that they anticipate an order coming out. And that is all the information that we have. I'm not sure that they have actually voted on anything at this time.

COMMISSIONER JABER: Because the concern I would have is --

MS. CALDWELL: Excuse me. I'm sorry, they have voted on something at this time, and I guess at this point it is just not formalized.

COMMISSIONER JABER: I think referring to a vote is more legal than the press release when they may not --

they may not incorporate in their order what is in the press release. So referencing a press release isn't appropriate, I don't think.

CHAIRMAN DEASON: I was certainly uncomfortable with it.

Mr. Fons.

MR. FONS: Could I offer a suggestion that we identify it as an exhibit as a place holder, give it an exhibit number. And if the order doesn't come out by the time something has to be done then that exhibit just stands there without anything associated with it. If that creates a complication, then maybe some other alternative would be better.

CHAIRMAN DEASON: Mr. Melson, any objection to that? I'm looking for what the parties are comfortable with.

MR. MELSON: Commissioner, I think we are comfortable with having official recognition taken of it when it is issued. At that point it clearly will be entitled to official recognition. The only difficulty, obviously, is if it is issued after the briefs are due. And at that point I guess if there was something so important --

CHAIRMAN DEASON: Well, is anybody going to be including it -- if the order is not issued, are you going

to be including in your brief things from a press release?

MR. MELSON: I wouldn't anticipate that, but I haven't talked with the people who are actually going to write the brief.

CHAIRMAN DEASON: Does staff plan on utilizing the press release for its analysis in this case?

MS. CALDWELL: I think they may reference the press release.

CHAIRMAN DEASON: What I'm going to do is I am going to -- we will take official recognition of the order when it comes out.

MS. CALDWELL: That will be fine.

CHAIRMAN DEASON: We are not going to officially recognize a press release.

MS. CALDWELL: And let's identify it as the order coming out in Dockets Number -- it is action taken by the Commission on October 12th, 2000, by First Report and Order and Further Notice of Proposed Rulemaking in WT Docket Number 99-217, Fifth Report and Order and Memorandum Opinion and Order in CC Docket Number 96-98, and Fourth Report and Order and Memorandum Opinion and Order in CC Docket Number 88-57(FCC00-366).

CHAIRMAN DEASON: Okay. Staff, that concludes your preliminary matters?

MS. CALDWELL: Yes, it does. I think at this

time we can either take up Mr. Melson's -- he has provided staff with a list of items it requested to be added to the official recognition list, and has provided copies of those items, so we could probably at this time put those in, as well.

CHAIRMAN DEASON: Mr. Melson.

MR. MELSON: Yes. We distributed to all the parties this morning, and I think by E-mail a day or two ago, a list of additional orders we would like to be officially recognized on behalf of Rhythms, Covad, and Bluestar. A couple of the orders are voluminous. I have provided copies to staff and BellSouth and have copies here for any of the other parties who care to have them.

CHAIRMAN DEASON: This is one FCC order, and then there are four other orders on the list from other states, correct?

MR. MELSON: Yes, sir.

CHAIRMAN DEASON: Okay. Any objection? Hearing no objection, show then that this will be added. Do you wish to have this identified as a separate exhibit or just recognizing this will be added to the list, is that sufficient?

MR. MELSON: That is sufficient.

CHAIRMAN DEASON: Very well. Before we get into inserting testimony and/or depositions into the record and

the accompanying exhibits, do any of the parties have any other preliminary matters? Hearing none, we will go into testimony and depositions in lieu of cross-examination. I believe when we concluded the hearing Witness Riolo was on the stand, is that correct?

MR. EDENFIELD: That's correct.

CHAIRMAN DEASON: Okay. And we will need to insert deposition -- is there more than one deposition or just one?

MR. EDENFIELD: Well, Mr. Riolo is just one deposition.

CHAIRMAN DEASON: Just one deposition, okay.

MR. EDENFIELD: And I'm not sure, Chairman Deason, is your preference to insert it like we would normally do testimony, or are we going to mark it as a separate exhibit?

CHAIRMAN DEASON: It is my preference that we would insert it into the record as though it were read. It will actually become part of the record in that manner.

MR. EDENFIELD: Okay. Well, to the extent it is BellSouth's burden to make that motion, I would move that into the record as if read.

CHAIRMAN DEASON: Okay. Let me ask this, are there any objections -- I understood that there may have been some objections to certain questions during the

deposition. And if that is not to be part of the record, an objection needs to be made now. Hearing no objection, then, show that the entire deposition shall be inserted into the record as though read.

MS. CALDWELL: Mr. Chairman --

CHAIRMAN DEASON: Are there exhibits to that deposition?

MR. EDENFIELD: There are. They are numbered 148 through 151. Do you need me to identify each of them separately for you, Chairman Deason?

CHAIRMAN DEASON: Yes. Let me ask what was the last exhibit number that we utilized in the record?

MS. CALDWELL: 147.

CHAIRMAN DEASON: Okay. So 148 through 151. Yes, if you could identify those just for identification purposes.

MR. EDENFIELD: For identification, what will be marked as 148 is the exchange area transmission revised resistance design, that is RL83-04-013 AT&T recommendation letter dated 4/83.

CHAIRMAN DEASON: Is this all Exhibit 148?

MR. EDENFIELD: That is all Exhibit 148.

CHAIRMAN DEASON: That is the longest short title I have ever heard.

MR. EDENFIELD: I mean, I can shorten these up.

All these are just resistance design and engineering guidelines.

CHAIRMAN DEASON: Okay.

MR. EDENFIELD: 149 -- maybe it is easier to do it this way. 149 is AT&T Practice 902-115-101 labelled Issue 3, March 1965.

CHAIRMAN DEASON: March of '65.

MR. EDENFIELD: Yes, sir.

CHAIRMAN DEASON: Okay.

MR. EDENFIELD: Exhibit 150 is Addendum 902-115-101SB, and that is Issue C, April 1984.

CHAIRMAN DEASON: Okay.

MR. EDENFIELD: And Exhibit 151 is RL96-02-26BT.

CHAIRMAN DEASON: Okay.

MR. EDENFIELD: And those are the four that were identified as cross-examination exhibits by BellSouth.

CHAIRMAN DEASON: I'm sorry, could you repeat that last?

MR. EDENFIELD: Yes, sir. Those were identified as cross-examination exhibits by BellSouth.

CHAIRMAN DEASON: Okay. And those are Exhibits 148 through 151?

MR. EDENFIELD: Yes, sir.

CHAIRMAN DEASON: Okay. Any objection to those exhibits?

MS. CALDWELL: Commissioner, staff doesn't have an objection, but I think in the deposition we noticed that Exhibit 151 was proprietary.

CHAIRMAN DEASON: Okay. So it has been identified at least at this stage as being proprietary, so it will be afforded that. There has been a request that it be proprietary, correct?

MS. CALDWELL: That is correct.

CHAIRMAN DEASON: Okay. So it shall be maintained proprietary and will go through the normal process. Ms. Kaufman.

MS. KAUFMAN: Mr. Chairman, I was just going to say that I have copies of Mr. Riolo's cross-examination for distribution and insertion in the record, if you want me to do that at this time or whenever it is appropriate. And I believe that the exhibits were provided by BellSouth to all the parties, but I can provide a copy to the court reporter, as well.

CHAIRMAN DEASON: Yes. If you could do that that would be appreciated. Yes, you can do it right now.

MR. EDENFIELD: And with that, Chairman Deason, we would move Exhibits 148 through 151 into the record.

CHAIRMAN DEASON: Yes. Without objection those exhibits are admitted.

(Exhibit 148 through 151 marked for

identification and admitted into evidence.)

MR. EDENFIELD: And that will conclude BellSouth's cross-examination of Mr. Riolo.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

Docket No. 990649-TP

Investigation into Pricing
of Unbundled Network Elements

TELEPHONIC CROSS-EXAMINATION OF

JOSEPH P. RIOLO

October 10, 2000

2:15 p.m.

675 West Peachtree Street
Atlanta, Georgia

Renda K. Cornick, CCR-B-909, RPR

BROWN REPORTING, INC.
1740 PEACHTREE STREET
ATLANTA, GEORGIA 30309
(404) 876-8979

APPEARANCES OF COUNSEL

On behalf of the BellSouth Telecommunications:

BENNETT ROSS, Esq.
BellSouth Telecommunications
675 West Peachtree Street
Atlanta, Georgia 30375

On behalf of Covad:

CATHERINE F. BOONE, Esq.
Covad
Suite 650
10 Glenlake Parkway
Atlanta, Georgia 30328

On behalf of WorldCom:

DONNA McNULTY, Esq. (Telephonically)
WorldCom
Suite 105
325 John Knox Road
Tallahassee, Florida 32303

On behalf of FCTA:

MICHAEL GROSS, Esq. (Telephonically)
FCTA
310 North Monroe Street
Tallahassee, Florida 32301

On behalf of Sprint:

JOHN FONS, Esq. (Telephonically)
Ausley & McMullen
P.O. Box 391
Tallahassee, Florida 32302

On behalf of Rhythms Link, Inc.:

JEREMY MARCUS, Esq. (Telephonically)
Blumenfeld Cohen
Suite 300
1625 Massachusetts Avenue
Washington, D.C. 20036

Also Present: Diana Caldwell, Florida Public Service Commission (Telephonically)

JOSEPH P. RIOLO,

having been first duly sworn, was examined and testified as follows:

MR. ROSS: Mr. Riolo, good afternoon. Just for the record, this is the continuation of Mr. Riolo's cross-examination in connection with Florida Docket No. 990649-TP. This is not a deposition but the cross-examination and will be conducted as such.

Do any parties have any objection to proceeding in that manner?

MR. FONS: Just for the record we have waived the fact -- this is John Fons -- we waive the fact that the attorney who started the cross-examination is not concluding it.

MR. ROSS: Yes, thank you. This is being conducted, this cross-examination is being conducted in this manner as an accommodation to Rhythm Links and Covad. Mr. Riolo has prior commitments, I believe, on the 20th and he has already withstood withering cross-examination for some period of time and we did not object to continuing the cross-examination telephonically so we

can conclude this in the most expeditious manner possible. But in order to accommodate that request, Mr. Edenfield is in a hearing in North Carolina which necessitated bringing in the second string so I am going to finish up the cross-examination. With that said, why don't we go ahead and get started.

CROSS-EXAMINATION

BY MR. ROSS:

Q. Mr. Riolo, I want to talk about loop conditioning a little bit. And in responding to questions for Mr. Edenfield, you discussed that Bell Atlantic had load coils on loops less than 18 kilofeet as a result of its installation of digital loop carrier systems in its network. Do you recall that testimony?

A. I don't recall that specific cite; but if you could read it back to me or something, refresh my memory.

Q. Instead of going through the transcript, is it your understanding that at some point in time Bell Atlantic began to deploy digital loop carrier systems in its network?

A. Certainly they have deployed digital loop carrier network.

Q. Prior to having digital loop carrier systems in its network, is it fair to say Bell Atlantic had loops that were relatively lengthy, in excess of 18, 20, 30 kilofeet?

A. Yes, they did.

Q. As I understood your testimony in response to Mr. Edenfield, you had indicated that when Bell Atlantic began deploying digital carrier or DLC systems that Bell Atlantic would cut back a copper pair and reuse that copper facility to serve customers from the office; is that fair?

A. They had done that in the past, yes.

Q. If in a particular instance Bell Atlantic had a loop that was 30 kilofeet, can we agree that chances are that loop would be loaded?

A. If the loop stayed out at a lengthy enough distance, then it would be loaded. For example, if it stayed at a distance and served customers in excess of 18 kilofeet then it would be loaded if it was used for voice grade service. However, if they cut it back to reuse it for close to the central office, let's for argument sake say 12,000 feet from the central office, they might not necessarily maintain the loads on that. They would have taken them off or they should have taken them

off, let me say that.

Q. Let's go back to loop that was originally 30 kilofeet from the central office. I think you testified you would agree that it would not violate any design practices to have load coils on that particular loop.

A. Not for voice grade service.

Q. And if Bell Atlantic were to cut back that copper pair when it installed a DLC system and it didn't remove those load coils, the copper being reused by Bell Atlantic would have load coils on them, correct?

A. Obviously, yes, in that instance.

Q. I believe I understood you to testify that because Bell Atlantic cut back a number of its longer loops that were needed when it deployed DLC, that explained why it is that Bell Atlantic had loaded copper pairs that were now less than 18 kilofeet.

A. That certainly could be one of the instances that would lend itself to that, that particular instance.

Q. And do you have any reason to believe that the circumstance we have just described of deploying DLC and the extent to which it was used in

connection with cutting back longer loops, that that was unique to Bell Atlantic?

A. It certainly wasn't unique to Bell Atlantic; however, I still have to stress the fact that when a copper cable is cut back and reused, if the reused cable is shorter than 18 kilofeet, then it no longer requires load coils for voice grade design. Thus by engineering guidelines, those load coils should have been taken off of the cable so that the reused cable becomes nonloaded from the central office to a distance less than 18 kilofeet.

Q. When were DLC systems first deployed in any significant number in the networks?

A. Early 1970s.

Q. And this would have been at the time you were employed at AT&T?

A. I was employed at New York Telephone and AT&T in the '70s.

Q. Is it fair to say that during the time you went back to Bell Atlantic which I believe was -- or NYNEX at the time -- in 1980, the DLC systems continued to be introduced with greater frequency in the network?

A. Yes, that's true.

Q. And it is your testimony that when Bell

Atlantic would cut back loops after deploying DLC in the network that it should have removed load coils from those cut back loops to the extent they were less than 18 kilofeet?

A. That's correct.

Q. To the extent that Bell Atlantic or NYNEX did not do that it would have violated engineering practices?

A. It would have violated the engineering guidelines, yes.

Q. And of course if Bell Atlantic had actually removed all the load coils from the cut-back loops less than 18 kilofeet, they wouldn't be in their network, there wouldn't be loaded loops in the network today as a result of this phenomenon, correct?

A. Provided the reason was that it was a reused cable. There might have been other reasons, but for that specific instance that you are questioning about, yes, it would be.

Q. Is it your testimony that in all instances when you are aware when Bell Atlantic cut back long copper loops after deploying a DLC system that it removed load coils from those loops?

A. It is my testimony that the engineering

guidelines would dictate that the load coils should be removed. Obviously without looking at each and every case, I couldn't comment on whether it was physically done, but that was the practice.

Q. Are you aware of circumstances during your tenure with Bell Atlantic where that was not done?

A. I am personally not aware of it.

Q. I believe I understood your testimony in response to Mr. Edenfield that reusing loaded cable that had been cut back after the installation of DLC system without removing load coils would be a design defect and would not follow industry practice; is that correct?

A. That's correct.

Q. And I believe that you testified that Bell Atlantic is willing to deload copper pair on behalf of ALECs at no cost because Bell Atlantic recognizes that it is a design defect and does not follow practice; is that correct?

A. That's correct.

Q. Can you take a look -- first of all, where is it that Bell Atlantic has made that statement, that allowing load coils to remain on loops that had been cut back after the installation

of the DLC system would violate design practices?

A. In recent testimony that Bell Atlantic in -- I believe it was in New York that they submitted it from the panel and likewise probably exists in other Bell Atlantic states. They would not charge for deloading cables less than 18 kilofeet because there was never a guideline in Bell Atlantic or at that time New York -- NYNEX that would require loading facilities less than 18 kilofeet for voice grade services.

Q. Do you happen to have your direct and rebuttal testimony dated July 31, 2000, in front of you?

A. Yes, I do.

Q. If I could ask you to look at Page 75 of that testimony, lines 4 through 8.

A. Yes.

Q. On this particular page and the lines we are referring to, you quote a statement from panel testimony of Bell Atlantic in a proceeding in New York. Is that the statement that you are referring to?

A. Yes, I am.

Q. Now, would you agree with me that the statement that you have quoted says that load coils

are generally not required for such loops, that's loops less than 18 kilofeet, under the current or past design criteria?

A. Yes, that is what it says.

Q. Would you agree that the statement from panel testimony of Bell Atlantic that you quote does not refer to the fact if load coils are in fact on a loop less than 18 kilofeet that it violates design criteria or constitutes a design defect?

A. Specifically in the words, the word violate isn't included in this statement, however, it is couched in terms that there are instances where cables are indeed loaded with load coils less than 18 kilofeet for design reasons. What they are addressing in the panel testimony was the fact that loops less than 18 kilofeet for voice grade service by engineering practice do not require load coils and hence that is the terms in which this statement is couched, that it violates those practices.

Q. What is Bell Atlantic's position, if you know, about removal of bridged tap?

A. I couldn't state their position without reading through some of the materials.

Q. Based on your participation in other proceedings, to your knowledge does Bell Atlantic

voluntarily remove bridged tap without charging ALECs for the expense in doing so?

A. It was not their position, at least initially, that they would do that; whether they have been ordered to do that is obviously another question.

Q. There was considerable discussion during your cross-examination by Mr. Edenfield about engineering practices and the like and I believe you had testified in response to Mr. Edenfield that the engineering practices that you were referring to with respect to load coils were generally set forth in the late filed Exhibit No. 3 to your deposition and I have a copy in front of me. I present a copy to you.

A. These were in addition to the guidelines that we were speaking of at that point as well, I believe.

Q. What other guidelines were you speaking to other than those referenced in your late filed Exhibit 3?

A. I don't see revised resistance design under here. Yeah. Here is revised resistance design. It is here. It would appear to cover them.

Q. So it is fair to say that when we have

been talking during your cross-examination about engineering practices and loaded loops that the engineering practices that you were talking of are set forth in the late filed Exhibit 3 to your deposition?

A. I am hesitating because I am looking for one other that just came to mind. There probably would be certain area concept guidelines as well. I don't recollect the specific practice numbers.

Q. Could you give me a little more description on what guidelines you are talking about?

A. Serving area concept talk primarily about segregating and interfacing the plant as opposed to hard wiring and multipling the plant. However, there were portions of practice that spoke about the plant that was serving a particular serving area would be designed in a certain fashion where it would be either all loaded or all nonloaded. So to the extent it addressed loading it would be a practice that probably should be included here.

Q. At least with respect to those that you have identified in connection with your deposition, you have identified Digital Loop Carrier Systems, AT&T Outside Plant Engineering Handbook dated August

1994; is that correct?

A. Yes.

Q. I believe at least a portion of that was attached and provided during discovery as at least indicated in your late filed Exhibit 3; is that correct?

A. Yes, it is.

Q. You also identified Carrier Serving Areas Metallic Loop Conditioning, Bell Core Notes on the Network Distribution dated December 1997 which also apparently was provided in connection with discovery; is that correct?

A. That's correct.

Q. You also identified an Exchange Area Transmission Resized Resistance Design and RL 8304013 dated August of 1983; is that correct?

A. Actually, April of '83 but yes.

Q. I am sorry, April of '83. Let me see if I can ask you to identify this document and see whether that is the RL 8304013 that you are referring to.

A. Yes, it is.

MR. ROSS: Let's go off the record.

(Discussion ensued off the record.)

Q. (By Mr. Riolo) Mr. Riolo, you also

identify on your late filed Exhibit No. 3 as item No. 4 Application of Resistance Design to Subscriber Loop Plant, AT&T Practice 902-115-101, dated March of 1965; is that correct?

A. That's correct.

Q. I have a copy of that which I would ask you to identify if I could.

A. That is the practice.

MR. ROSS: If we could go ahead and mark this as Exhibit 148.

MR. FONS: This is John Fons, I thought we had done item No. 3 of Exhibit 3 as 138.

(A discussion ensued off the record.)

(Exhibit 148 was marked for identification.)

MR. ROSS: Item No. 4 from Mr. Riolo's late filed Exhibit No. 3 is a March 1965 AT&T practice which we have marked as Exhibit 149.

(Exhibit 149 was marked for identification.)

Q. (By Mr. Ross) Mr. Riolo, item No. 5 on your late filed Exhibit No. 3 is an April 1984 Application of Resistance Design to Subscriber Loop Plant; is that correct?

A. Yes, it is.

Q. Let me see if you can identify this document for me.

MS. BOONE: Bennett, I am not going to instruct the witness not to answer, but I would like to raise an objection. In my view this is the worst kind of the second bite of the apple. Mr. Edenfield questioned Mr. Riolo at length during the hearing about design guidelines, et cetera, and I think that you have obviously used the opportunity to go back through the testimony and clean up for Mr. Edenfield. I don't think that is appropriate. But that being said, I will allow the witness to answer.

THE WITNESS: This is the practice that I referred to.

MR. ROSS: We will mark that as Exhibit 150.

(Exhibit 150 was marked for identification.)

Q. (By Mr. Ross) Mr. Riolo, item No. 6 on your late filed Exhibit No. 3 is a Gauging of Distribution Cables which is a BellSouth Practice dated November 1998; is that correct?

A. Yes, it is.

(Exhibit 151 was marked for identification.)

Q. (By Mr. Ross) Now, I am sorry, this exhibit which we will mark as Exhibit 151 is proprietary. Is this the document that you were referring to in your late filed exhibit?

A. I am only hesitating because it looks like something was cut and pasted on here. That's my hesitation. Do you have the original?

Q. I believe it was a download, these are all electronically stored.

A. It looks like something has been cut and pasted in the center portion here, that's why I am hesitating, on mine.

MR. ROSS: Let's go off the record a minute.

(Discussion ensued off the record.)

THE WITNESS: To answer your question, yes, it is.

MR. ROSS: Let's mark item No. 6 from your late filed Exhibit No. 3 as Exhibit 151 and that is proprietary and should be treated as such.

Q. (By Mr. Ross) Of the documents that we

have been discussing, Mr. Riolo, the only one that appears to have been generated during the time that you were performing audits on behalf of AT&T was what we have marked as Exhibit 149 which is the March 1965 Application of Resistance Design to Subscriber Loop Plant; is that correct?

A. That would be in the time frame I was at AT&T and these others would not be, that's correct.

Q. If I could ask you to look at Page 69 of your rebuttal testimony.

At lines 11 and 12, you make the statement that all new plant placed since the early 1980s should meet these engineering guidelines. Do you see that statement?

A. I see that statement, but I would like to read what context it is in if you are going to ask me something on it.

Q. Certainly.

The engineering guidelines that are being referred to in that statement are the CSA guidelines, plant designed to CSA guidelines and SAC since the 1980s. My question really was referring to all new plants placed. Is it fair to say that the engineering guidelines you describe in your testimony and we have been discussing here, talking

about the placement of facilities, of new facilities, rather than the treatment of facilities that were already in the ground?

A. Certainly new facilities should be designed according to the existing engineering practices and guidelines. Existing facilities when they were being rearranged or modified, again, would be rearranged and modified in accordance with design practices that exist.

Q. What about facilities that were not being rearranged or modified, was there any practice or requirement that an incumbent just simply on its own initiative go and deload copper pairs?

A. Well, again, let us separate the two guidelines that we are speaking of, two sets of guidelines that we are talking of. One set of guidelines talks to the issue of loading plant, those guidelines predate the '80s. The issue of carrier serving area guidelines which was instituted in the '80s talked about segmenting plant and it put together an orderly procedure for the migration of the plant from its existing condition to its ultimate condition or as we were referring to it in past testimony as its present method of operation to its future method of operation.

Q. Just for our discussion purposes, how would you collectively refer to the guidelines and practices that are set forth in your late filed Exhibit 3 so we don't confuse them with the CSA guidelines that you are discussing in your testimony?

A. How would we characterize them in what sense?

Q. So that when I am referring to them if we have to draw a distinction between the CSA guidelines and these other guidelines we can do so and know what we are talking about.

A. The only way to make a very discrete distinction would be to refer to them as a practice resistance design practice as opposed to CSA guidelines. The reason I couch it in those terms is that carrier serving area touches upon the issue of loading as an example. Resistance design practices touch on the issue of loading in addition to other things. So they have common issues that they each speak to, so for the purposes of answering your question, if I know why you are addressing or what issue you are attempting to address in the practice, then I can give you a more forthright answer.

Q. Let me do it this way. What I want to

focus on is plant that is not new construction and that is not being rearranged or modified. Is there any requirement in the CSA guidelines that you describe in your testimony on Page 69 which would obligate BellSouth to remove load coils from loops less than 18 kilofeet?

A. No. But the CSA guidelines would dictate that the geography be segmented into discrete pieces and that those cables serve the area irrespective of whether or not they are being touched today, would be looked at and planned in such a way that any future work that was going to be performed on those cables would be performed in accordance with the CSA guidelines. So even though the cable hasn't been rearranged or modified today, the CSA guidelines is a planning tool that allows you to project what the ultimate configuration of the plant ought to be. So that any point in the future that you perform modification or rearrangement work, you should be migrating the plant from its present mode of operation into this future mode of operation that is dictated by CSA guidelines. So while it wouldn't tell you to stop everything you are doing today and go out there and do something for that plant just for the sake of CSA guidelines, it does in fact tell

you that when the opportunity exists to modify or rearrange that plant then you should do it in accordance with these guidelines and migrate the plant toward the CSA guidelines, not go in the opposite direction.

Q. As long as the opportunity never arose to rearrange or modify existing plant it would not have violated the CSA guidelines for BellSouth not to have removed load coils from loops that are less than 18 kilofeet?

A. Again, it is a mixture of two concepts. CSA guidelines would have not said to do anything to the plant. The resistance design guidelines would have dictated that it should not have been loaded to begin with.

Q. We will get to those in a minute.

A. As long as you understood that.

Q. Let me see if I can get you to answer the question. Assuming the opportunity did not arise for BellSouth to rearrange or modify some existing facilities that were loaded, it would not have violated the CSA guidelines for BellSouth not to have removed load coils from those facilities?

A. That's correct.

Q. Let's talk about the guidelines or the

practices that are set forth in your exhibit, late filed Exhibit 3 to your deposition.

A. Okay.

Q. Again, a situation where BellSouth -- it is not new construction and it is not rearranging or modifying existing facilities. Is it your view that BellSouth, that these practices would have obligated BellSouth to remove load coils from those facilities?

A. Again, the CSA guidelines would have presented no obligation to do work in any instance where it wasn't planned for some other reason than satisfying the guidelines, so to speak. But, again, the resistance design guidelines could have said that particular facility should not have been designed as a loaded plant.

Q. Let me stop you there. We have moved away from the CSA guidelines. Now I am talking about the engineering practices, everything set forth collectively in your late filed Exhibit 3.

A. Let's do that again.

Q. We are talking about a situation where it is not new construction, it is not a rearrangement or modification but again you have existing facilities that have been loaded. Is it your

testimony that these practices set forth in your late filed Exhibit 3 would have obligated BellSouth to remove load coils from those facilities?

A. Only insofar as if those facilities had been loaded by design error and it was subsequently discovered that they were indeed misloaded or loaded by design error, then BellSouth would have been under some obligation to remove those load coils and bring them up to standard.

Q. Looking back at your rebuttal and direct testimony at Pages 169 through -- I am sorry, Pages 69 through 71, you begin with the statement that incumbents should have been conditioning existing plant as part of ongoing maintenance since the early 1980s. Is that your testimony?

A. Are you pointing me to a specific location in here?

Q. I am looking at Page 69, lines 12 through 14 where you make the statement that, quote, ILECs should have begun conditioning their existing plant as ongoing maintenance since that time.

A. Yes.

Q. I assume that time is the early 1980s.

A. Yes.

Q. Then you go on from lines 15, 16, on to

Page 70 why you think conditioning should have been performed as part of routine maintenance, do you see that?

A. Yes, I do.

Q. Is it your testimony that BellSouth should have been conditioning its existing plant as part of ongoing maintenance since the early 1980s?

A. Yes. Insofar as the discussion that is in my testimony, wherein the plant is being modified or rearranged, installed, added to, whatever.

Q. So it is not your testimony, for example, that if BellSouth were just simply on a routine repair call to fix a service problem on a loop that that would have triggered the obligation to condition that loop or all the loops in a particular binder group?

A. Again, if it was discovered that they were loaded in error and could very well have been causing plant conditions, substandard type of service, then BellSouth would have been under some obligation to remove load coils in that regard.

Q. Well, I want to make sure I understand what you mean by had the plant been placed in error.

A. If it had been loaded in error.

Q. Okay.

A. And it had been subsequently discovered in the course of doing work, then that plant condition should have been addressed. It is not any more dissimilar to hazardous conditions that are discovered in the normal course of events. Those we address immediately because, you know, there is risk to life and limb. Again, with plant conditions that could degrade service or cause service affecting trouble, when those are discovered, they likewise should be treated.

Q. So you believe that the presence of load coils degrades service?

A. The presence of load coils could degrade service dependent upon the service that you are putting on there. For example, you know, we obviously know that DSL service will not work on loaded plant. So it does affect that. That's an extreme case, but it certainly affects that type of service. Having multiple loads where because of a craft error, someone puts two load coils on the same cable pair at the same location, a double load, so to speak, that severely degrades the transmission. Loading plant improperly does not provide the quality service that the practices speak to.

Q. Is it your testimony that the practices here would -- that we have discussed in Exhibit 3 would have obligated a BellSouth technician who simply comes across, comes out to repair a particular out-of-service condition on a loop, that would have obligated the repairer/technician to remove load coils from that loop if they were on the loop and condition the binder group in which that particular group was contained?

A. Certainly --

Q. Yes or no, then you can explain.

A. No, because the technician does not do this work of his or her own volition. They are directed to do it by an engineering work order.

So if there is a design defect that was discovered, it is incumbent upon the engineering organization to issue an order to rectify that situation. I don't know if you specifically meant when a craftsman finds it should he stop everything he is doing and fix it, that would have to be at the direction of engineering.

Q. A repair, just a normal customer, residential customer is out of service, something is wrong with the loop, does the engineering group get involved in that repair call by the service

technician?

A. No. An engineer typically does not get involved on a service affecting trouble that a field technician is dispatched on; but if you were talking about deloading a whole cable as opposed to fixing a trouble on one isolated customer service, the technician would need additional authorization to do more than just his particular trouble that he is working on.

Q. And I guess what I am really interested in is -- and if you have Exhibit 149 which is the March 1965 Application of Resistance Design to Subscriber Loop Plant Guidelines that you discussed -- what I am looking for is some statement in this guideline which would obligate BellSouth to take affirmative steps to deload a loop as part of a repair call or maintenance visit.

A. The practice states on the first page, as an example, load all loops over 18 kilofeet. The corollary so to speak is true, loops less than 18 kilofeet need not be loaded.

Q. And I understand that. I guess my question was a little more specific. I don't think anybody disputes that at some point in time loops less than 18 kilofeet didn't need to be loaded but

where in this particular guideline or practice that we have marked as Exhibit 149 does it obligate BellSouth or the incumbent to affirmatively remove load coils as part of routine maintenance or repair?

A. Certainly there isn't a specific line item in this practice that directs you to do that in those terms, but this is the practice at least at this point in time to be followed, so to not follow it would require action even though it would not necessarily be specifically itemized on here.

Q. Is it fair that in looking at Exhibit 149 that it really doesn't address loops under 18 kilofeet at all explicitly with respect to load coils?

A. Yes. But rather it addresses those over 18 kilofeet that then need to be loaded. The practice speaks to design limits. So, you know, in that regard it is not only load coils but other limits of the plant.

Q. We can go through each one of these exhibits, 148, 150, and 151, but are you aware of any particular provision in these various practices that would obligate BellSouth as part of routine maintenance and repair to remove load coils from a loaded loop that was less than 18 kilofeet, yes or

no then you can explain.

A. I would like to say yes from the point of view that some of the additional guidelines get a little more specific than the one we have been looking at from 1965 and speak to the term that loops less than 18 kilofeet should be nonloaded. So in that regard, they are giving you a guideline that says thou shalt not have loads less than 18 kilofeet.

Q. We will do it one at the time, then. If you look at what we have marked as Exhibit 148 which is the AT&T Exchange Area Transmission Revised Resistance Design dated April 1, 1983, do you see that?

A. Yes, I see that.

Q. I believe as part of the revised resistance design rules there is the statement which says that loops 18 kilofeet or less number nonloaded, do you see that?

A. Yes, I do.

Q. Is it your testimony that this guideline obligated all of the regional Bell operating companies to immediately remove load coils from every loop that is less than 18 kilofeet in their existing network?

A. No, it did not. There obviously are instances where circuits are designed to have load coils irrespective of the lengths shown in these practices. So in that regard they fall outside of the design criteria shown here but maybe included in some of your question.

Q. Let's talk about, let's remove the circuits that have been designed to account for some amount of load coils. Is it your testimony that the revised resistance design that we have marked as Exhibit 148 triggered the obligation on behalf of BellSouth and other RBOCs to remove load coils from every loop less than 18 kilofeet?

A. Yes, in terms it would be a violation of the guidelines.

Q. So you don't read Exhibit 148 to talk about or to address new placement of new facilities.

A. No. The revised resistance design certainly includes new facilities but the design of copper plant could be something other than just brand new cable.

Q. Now, you make the statement that BellSouth -- and I take it that your view is that BellSouth should have been removing all of these

load coils from its embedded plant beginning, I take it, in April of 1983.

A. They should, yes, they should have been removing load coils from its embedded plant where they were in violation of design criteria. Again, obviously where they were designed that way there was no obligation to correct the situation that didn't need to be corrected.

Q. And your testimony is that BellSouth was obligated to do that beginning of April of 1983, I mean, as part of some initiative to comply with these guidelines?

A. Well, certainly to comply with the guidelines of 1983 they would have been under some obligation, you know, to meet the obligation of the 1965 guideline, they should have been doing it in 1965 as well.

Q. But your testimony beginning on Page 69 talks about conditioning as part of routine maintenance. I believe you have indicated that BellSouth should have been removing load coils as part of modifications or rearrangements, correct?

A. Yes.

Q. But now you are testifying that not only was BellSouth obligated to remove load coils in

connection with rearrangements and modifications, it actually was obligated to remove load coils from any loop less than 18 kilofeet assuming that it hadn't been designed to account for load coils; is that correct?

A. Yes, that is.

Q. That obligation should have been, in your view was triggered notwithstanding whether BellSouth ever did any rearrangements or any modifications to that particular loop; is that your testimony?

A. Yes, insofar as if the load coils were on a cable due to the fact that it was improperly designed, then some initiative should have been undertaken by BellSouth to correct that situation and to bring it up to standard.

Q. What initiative did Bell Atlantic undertake or NYNEX at the time when you were employed with the company beginning in 1980 around the time these guidelines were adopted to affirmatively remove load coils from all of its loops less than 18 kilofeet assuming they hadn't been designed to account for load coils?

A. I can speak to, obviously, my personal experiences as an engineer and as a manager of engineers. The preponderance of time was spent in a

Manhattan environment which had only nonloaded loops so to that extent it would not have applied. We didn't have loads on those cables. There were, however, in the interoffice plant that I worked on load coils and there were instances where we opted to reuse an interoffice copper cable for subscriber purposes. And we did indeed remove the load coils from that loaded interoffice facility.

Q. Is flash cut beginning in April of 1983 or over time?

A. My experience when I used that cable as part of design of reusing the cable, we designed it properly. The proper design called for a nonloaded cable so the loads were taken off the cable.

Q. So is it fair to say in the situation you just described when you came across a particular cable that was loaded that in your view should not have been, then you would do something about it?

A. Yes. I think that is what I am trying to convey to you. I don't know what impression you have that leads you to believe otherwise.

Q. My impression is -- and maybe I misunderstood you -- but my impression was that your testimony is when these guidelines, the guidelines we have marked as Exhibit 148 being an example, took

effect that Bell Atlantic and BellSouth was affirmatively obligated to identify every instance in its network in which it had loaded facilities that didn't comply with these guidelines and to then remove those load coils to comply with the guidelines. Did I misunderstand your testimony?

A. We must have misunderstood each other. I didn't lead you to believe or at least I don't think I led you to believe that there was some affirmative action that occurred on the issuance of this particular design practice, wherein the incumbent LECs went out and looked at all their plant and decided which ones did or did not fit the criteria. The criteria goes back for quite some time. It spans at least with the practices here since 1965 so to that extent it is 35 years, well beyond the useful life of the plant that these design practices have been in effect. So the point I was attempting to convey was that whenever a substandard condition is found in plant, it should be addressed.

Substandard conditions can come in many flavors. Again, there are safety types that you address immediately. There are transmission types that may not be as high a priority as a safety problem. But you are still under some obligation to

address and correct the situation.

Q. Let me ask it this way. Maybe I did misunderstand you, but is it your testimony that any of the guidelines that we have said affirmatively obligated BellSouth to identify every instance in which it had loaded facilities that may not have complied with these guidelines and correct that condition?

A. No, not as a program on the date of issuance to go forward and to identify each and every cable and how it is loaded, no.

Q. So your testimony is as BellSouth in the course and practice of maintaining its network discovered situations in which its network did not comply with these guidelines, it was obligated in your view to correct that condition?

A. Yes.

Q. Let's talk about your proposal that -- let me back up just a minute. We have been talking mostly about load coils. Is it your view that these same guidelines and same practices require BellSouth to remove bridged tap to the extent it did not comply with these guidelines with respect to bridged tap?

A. Yes.

Q. Going back to the question of how many loops should be conditioned at a time. Your view is that 50 pair on average should be conditioned at a time; is that correct?

A. Yes, that is.

Q. And you have in your testimony outlined proposed rates for that work or actually work activities and costs associated with that work, assuming the commission agrees that the cost of loop conditioning should be recovered from the ALECs; is that correct?

A. Yes, it is.

Q. Now, in looking at the development of those costs and how you came up with the 50 pair -- let me see if I can find the page. Actually you discuss the work activities at Pages 92 and 93 of your testimony. I want to make sure I understand the practical implications of what it is that you have proposed. I want to give a hypothetical in order to do that. Assume for a moment that one of your clients, Covad, asks for a particular copper loop to be deloaded, to remove load coils and bridged tap and under your view BellSouth should then go to that binder group in which that particular loop is located and remove the load coils

from that loop as well as the other 49 pair that are in the binder group, is that correct, assuming no spare facilities, et cetera?

A. Not exactly because you are assuming a 50-pair binder group and they may not be a 50-pair binder group, rather 25-binder or 100-pair units. On average I was stating 50 cable pairs should be deloaded on average.

Q. Let's take 25. I am just trying to understand the concept so the number really is irrelevant. Let's make it 25-pair binder group. Just so I am clear, assuming that the pair that Covad has asked to be deloaded is in a 25-pair binder group, is it your view BellSouth should deload that binder group then another 25-pair binder group on top of that?

A. No. Not exactly. Let me explain to you what was going on.

We spoke in terms of averages, average 50 pair should be deloaded because typically outside plant starts at the central office as a relatively large cable and tapers as it proceeds to the end user or into the distribution plant. So it is kind of fat at the central office and skinnies down towards the customer end and in that regard looks

like what they typically call a pine tree.

The opportunity for deloading is obviously greater at the central office end where the cable is fatter than it is at the end user end where the cable typically is smaller. I say that 50-pair deloading average is a reasonable average because near the central office you could typically deload several hundred pairs at one time whereas at the end user's location you typically would deload much fewer pairs than that, you know, less than a binder group, perhaps.

Q. Let's go back to the example where it is a 25-pair binder group that is being deloaded and BellSouth deloads the one pair to meet Covad's order and at the same time deloads the 24 other pair in that particular binder group. How is it under your view of the world BellSouth is to recover the cost of deloading the other 24 pair that Covad has not requested but that someone next week or the week after may request?

A. It is my understanding, No. 1, that the loops that would be requested by Covad, for example, would be for DSL purposes, therefore would be 18 kilofeet or less and therefore should not be loaded to begin with. So under that set of criteria, the

cost recovery issue is not really an issue but rather an obligation on BellSouth's part.

Q. Let's assume the commission doesn't agree with you on that, all these questions should be -- I understand your stand on that issue. But assume the commission says BellSouth is entitled to recover the cost of loop conditioning and going to my question where BellSouth has commissioned 25 pair, only 11 pair is requested by Covad, how is BellSouth to recover the loop conditioning costs caused by the other 24 pair?

A. That would be in my view an obligation on the part of BellSouth as part of its normal maintenance procedures.

Q. I take it from that that you would understand BellSouth's retail customers to absorb the costs of conditioning those other 24 pair?

A. It would be an expense to BellSouth.

Q. But I just want to understand, it is an expense of BellSouth no matter, whatever, BellSouth is doing the work. My question is is that an expense that you believe ought to be borne by BellSouth's retail customer. That's a yes-or-no question.

A. Yes. To the extent that BellSouth has

foisted upon its customers the cost of that load coil initially that should not have been there, they are now obligated to take that load coil off. So they have costed, if that's a word, they have caused their customers to pay for something that should not have been on there to begin with.

Q. And continuing my hypothetical where Covad has asked for the one loop to be deloaded, and BellSouth under your proposal deloads the entire 25-pair binder group, the very next day Rhythms comes in asking for loop No. 2 in that same binder group, it already has been conditioned, your view is that BellSouth should charge Rhythms nothing for the work it had previously done at the behest of Covad?

A. Yes, insofar as the plant had been brought up to standard there should not have been an obligation on the part of even Covad initially to pay for it. That has been my position. The only reason we are talking to the term of Covad paying for the first pair would be if the commission sees fit to charge the CLECs for BellSouth's lack of following its own practices.

Q. But just so I am clear, your position is even assuming the commission finds BellSouth is entitled to recover the cost of loop conditioning,

under your proposal BellSouth is only entitled to recover the cost of unloading one pair or however many pair are actually ordered by the CLEC that triggers the conditioning of the loops; is that correct?

A. Yes, it is.

Q. Can I ask you to look at Page 43. I am going to change subjects, moving away from loop conditioning, much to your chagrin, I know, and talk about loop qualification for just a minute.

At the bottom of Page 43, beginning at line 17 through 21, you talk about the information that competitors require to determine the suitability of a loop for provisioning xDSL service, do you see that?

A. Yes.

Q. You make the statement that it is necessary to determine the type of facility, i.e., copper end to end or an amalgam of fiber, copper, electronics. Do you see that?

A. Yes, I do. XDSL.

Q. Why is it that a type of facility is necessary for a competitor such as Covad or Rhythms to determine whether it can offer its xDSL service?

A. As an engineer there are various design

criteria you need to satisfy in order to provision a service. Let us take the case of copper loop. The copper loop should be no greater than a certain distance, should have certain characteristics of capacitance and balance and such and if it satisfies those criteria, then a CLEC is enabled to provision certain grades of service on that, similar to what BellSouth does. On the other hand, if the loop is a composite of fiber and electronics and copper, a different set of criteria needs to be satisfied for the provisioning of very similar, if not exactly the same, types of services; therefore the engineers in the CLECs would need to know the criteria so that they could design based on that criteria.

Q. Let me make sure I understand. If you go on to look at the answer you give on 43, you seem to draw a distinction between the type of facility, i.e., copper, end to end or an amalgam of copper, fiber and electronics on one hand versus the characteristics of facility such as the length, the gauge and some of the other factors you just mentioned. Did I understand your testimony correctly?

A. You need to know both of those.

Q. My question is why does the data LEC need

to know the first category of information, that is, whether it is copper end to end or an amalgam of copper, fiber and electronics?

A. It is conceivable that certain services may or may not be provisionable if the first set of criteria are different or not set.

Q. But by that you mean, for example, if a particular facility is a mix of copper and fiber that is being served by a DLC system that a particular xDSL service may not function over that particular arrangement?

A. Yes. Similarly in a copper loop if it doesn't meet certain criteria, a similar service may not be provisioned on it as well, as you can recognize.

Q. Looking at your rebuttal at Page 9, at the very bottom of the page, lines 22 through 23.

A. 9.

Q. Page 9 of your direct rebuttal I think is what you call it.

A. Have I --

Q. Bottom of the page, lines 22 and 23 continuing on the following page.

A. Yes.

Q. In this part of your testimony, you are

discussing that in fiber-fed arrangements for longer loops, which I assume are being served by DLC, that you may need a particular type of DLC remote terminal, a particular type of channel unit and a particular type of plug-in card that may be different from the voice-only facilities that are in place to provide voice to that customer; is that correct?

A. Not necessarily particular as much as certain generation of equipment and particular plugs. Yes.

Q. Let me just see if I can use an example. You have got a particular type of DLC system that is being used to provide service to a particular end user. Is it your testimony that in order to provide xDSL service to that particular customer you may need a different type of DLC system or a different type of line card in order to make the xDSL service work under that arrangement for that particular customer?

A. Yes, with a couple of caveats.

Q. Okay.

A. Firstly, the service that you are presently provisioning is a voice grade service and now you are attempting to put a DSL service on it.

Obviously if you are provisioning DSL service then all things would stay the same, perhaps.

But again with the caveat that initially there is voice service and now you want to provision DSL type service, the criteria that would then be looked at, would be the generation of DLC equipment whether it was DSL compatible or upgraded to DSL capability; and if it is indeed capable of DSL service, then the requirement would be of the type of plug that would be necessary to drive the particular type of DSL service that would be required.

Q. Going back to something you just stated, that assuming that the customer's presently getting some type of DSL service in addition to voice over the existing facilities, you said all things being the same, service might work, perhaps. Is it fair to say that just because a particular xDSL service is working over a particular arrangement doesn't necessarily mean that every xDSL service will work over that same arrangement?

A. That's correct.

Q. Now, when it comes to providing just voice service, basic vanilla voice service, do you have to consider such technical issues as the type

of DLC equipment that is in use or the type of line cards? I mean, as long as we have a DLC system and a voice line card, that's enough to make voice work, isn't it?

A. All the DCL systems to my knowledge that I can think of off the top of my head provision at least voice grade service, whether certain types of voice grade service, whether it is a loop service as opposed to ground service might require the need for a different type of plug. But in general type of terms VF type service, yes, they are capable of VF service.

Q. Let me ask you to look at Page 30 through 31, actually, I guess it is Page 29 through 31 of your testimony. This is the last group of questions I have so after this we will be done.

You summarize your findings on this particular page concerning the assumptions that you believe ought to be incorporated into BellSouth's nonrecurring cost studies; is that correct?

A. Yes, it is.

Q. Now, I understand that this testimony was filed before BellSouth filed its revised cost studies so I want to see to what extent some of these assumptions have changed and in particular the

service inquiry assumption that you believe ought to be 10 percent of the orders. Has that recommendation changed as a result of the revisions that BellSouth has made to its cost studies?

MS. BOONE: Bennett, are you referring to a particular revision? Maybe you could direct the witness to that.

MR. ROSS: If the witness can't answer my question, I will certainly elaborate on it. He is thinking.

THE WITNESS: I am thinking because I obviously read both the beginning and the end stories.

Certain information -- and I will have to go through calculations to figure out -- but, for example, in Group I service inquiry, we have a number 52 percent of the orders on my chart, that was listed as BellSouth's reported time. That number was changed on a revised study. Now I have to look at, you wanted to know which numbers have changed or not changed?

Q. (By Mr. Ross) Well, I am not asking you which of BellSouth's numbers have changed, I am asking which of your recommended adjustments has

changed, if at all, as a result of the adjustments to BellSouth's cost studies.

A. BellSouth changed the number of 52 percent, I still believe it should be 0 minutes, it should be mechanized which is the next column over. The third column over where we talk of 30 minutes on 10 percent of the orders, as a result of a manual look up of paper records, I heard in testimony when I was in Tallahassee that Map Viewer has a great deal more functionality than I knew about when I even made this up. So I feel comfortable that the numbers here are conservative, if anything. So I will stay with these numbers.

Q. Do you understand that BellSouth has essentially proposed now two different types of costs, one if the ALEC does the loop makeup itself and another one if the ALEC decides for whatever reason not to do the loop makeup, it wants BellSouth to do it. Do you understand that?

A. Yes.

Q. In the second category, if an ALEC decides not to do the loop makeup and requires BellSouth to do it, it is going to require a manual service inquiry of some sort on a hundred percent of those types of orders.

A. If you are speaking to the point of could it be an electronic arrangement where an inquiry comes over and goes through a BellSouth system and comes back, to that extent, yes, I can foresee it happening. And I could see some BellSouth involvement. I don't know if that answers your question.

Q. I am not sure it does. Let me see if I can follow up just a minute and maybe we can get to the bottom of it. Your statement that the service inquiries should take 30 minutes and should only apply to 10 percent of the orders, what I am trying to find out is in the category of orders where the ALEC is saying to BellSouth, look, I don't want to do the loop makeup, you do it, isn't that necessarily going to mean that a hundred percent of the time on those particular orders BellSouth is going to have to do some service inquiry in order to determine the loop makeup?

A. I would like to answer you quickly but I just want to look through the pieces that comprise that.

Q. That's fine.

A. To see what would be affected, if anything.

I think to answer your question for those instances where for whatever reason a CLEC would request BellSouth on a service inquiry to do the loop makeup, that there would be some interface that would have to go on between the two, between BellSouth and the CLEC and therefore would require something on the part of BellSouth for those specific cases that are being addressed, the time involved to do that I would see as being somewhat de minimis insofar as all of those functions should be highly automated on a forward-looking basis. So yes a hundred percent of the time but the time would be very minimal.

Q. More minimal than 30 minutes, less minimal than 30 minutes?

A. Yes, insofar as if you read the transcript of Murphy who says, for example, that the LCSC wouldn't even be involved, they wouldn't exist if it was an automated system. So one of the three components of the service inquiry wouldn't exist if that was indeed automated. On a forward-looking basis, automation seems a reasonable thing.

Q. My question really is you said that the 10 percent of the order assumption is no longer valid in the category of cases where the CLEC is

asking BellSouth to do the qualification.

A. Yes.

Q. My question is, instead of 30 minutes what are you actually proposing to the commission?

A. I would propose that the number be substantially less insofar as it should be provided on a more automated basis since the automation exists to some extent already. Mr. Pate, I believe, said in testimony that the Map Viewer system can generate a loop makeup in a matter of minutes. I was basing 30 minutes on experience of me doing it manually, and countering Mr. Zitsman who claimed it would take 2-1/2 hours.

Now, I can do a loop makeup and my clerical force was able to do a loop makeup in 30 minutes or less, so I thought 30 minutes was a reasonable alternative on the basis of doing it manually. With the hindsight now of being in the Tallahassee hearing and listening to Mr. Pate say that for a hundred percent of the cases in Florida, Map Viewer is able to generate this same loop makeup in a matter of minutes by pressing a button and out it comes, I think 30 minutes is much too generous.

Q. Did you propose a different recommendation to the commission in your

supplemental rebuttal testimony on this point?

A. I believe, I do not think I put a supplemental rebuttal piece together on that particular portion.

Q. Let's look at the engineering times. You also have various 15 minutes, 18 minutes and eight-minute assumptions based on essentially 1 percent of the orders.

A. Yes.

Q. Have you presented this commission with any studies or data that would support your 1-percent assumptions that you have used in connection with the engineering work times?

A. No, I have not. It is based on what I feel is as reasonable experience with automated systems. While I am certainly no automation expert my exposure to systems such as LFAX on normal POTS grade service, they are able to generate flow-throughs that are substantially similar to this.

Q. Likewise, when you have provided recommendations on the SSI&M group, outside plant, the work times you associated with 20 percent of the loops, have you submitted any studies or data that would support use of that particular assumption to

this commission?

A. No, I have not. It was based on the amount of dispatch that occurs when BellSouth provisions it own voice grade services, they don't dispatch on every one, they dispatch on about 20 percent. Since these services for all intents and purposes are similar to voice grade services in this regard, there is no reason why it should exceed that amount.

Q. When you say it is similar to voice grade services, do you know what the cost is to a BellSouth retail customers to order voice grade service from BellSouth in the state of Florida?

A. No, I do not.

MR. BENNETT: I think that's all my questions. We were the last party to cross except for the staff.

MS. BOONE: I have a very brief redirect.

MR. ROSS: Diana, the witness is yours if you want him.

MS. CALDWELL: Staff has no questions.

DIRECT EXAMINATION

BY MS. BOONE:

Q. I have some very quick redirect here.

Mr. Riolo, Mr. Ross asked you about why DSL providers need to know about whether a loop is made up of fiber or fiber and copper. Do you remember those questions?

A. Yes, I do.

Q. Will BellSouth allow a data CLEC to buy DSL over a fiber-fed loop at this time?

A. Not to my knowledge.

Q. Are there any other ILECs that you know of that are allowing this option?

A. SBC has proposed language that would permit CLECs to offer DSL services over their Project Pronto network which is comprised of fiber and electronics.

Q. You talked a little bit about the types of DLCs that may be required for this type of functionality. From your review of the BellSouth data have you reached any conclusions about BellSouth's plans to deploy what is called next generation DLC?

A. Yes, I have.

Q. What are those conclusions?

A. Without speaking of proprietary types of equipment, BellSouth is proposing to use next generation DSL capable types of electronics in

connection with their fiber and remote terminal locations.

Q. Earlier in the cross-examination Mr. Ross was asking you about Bell Atlantic and its process of removing load coils. Having worked for Bell Atlantic, you quote some of the Bell Atlantic testimony in your testimony. Is it likely in your understanding that Bell Atlantic would publicly state it is violating a design guideline?

A. Well, I don't think any business organization would publicly claim they are violating things if they could couch it in terms that are more sophisticated, so to speak, and would lead to the same conclusion, that they would remove the load coils at no cost. So the end purpose is achieved and the embarrassment is avoided.

Q. Can you think of any other reason why Bell Atlantic would decide not to charge for moving load coils other than it is violating guidelines?

A. No, I cannot.

Q. We have talked about a lot of design criteria guidelines here today. Is it fair to say that your opinions and your testimony are based on 30 years of your review of these type of guidelines?

A. Yes, it is.

Q. As well as based on your experience in the field?

MR. ROSS: Objection. This is redirect, not leading the witness. I know that this is informal, but I would ask that counsel at least pay lip service to that requirement.

MS. BOONE: Certainly.

Q. (By Ms. Boone) You talked a little bit about the need to remove load coils when rearrangements or modifications are made to plant. Do you remember that discussion with Mr. Ross?

A. Yes, I do.

Q. What types of rearrangements or modifications would trigger this type of proactive removal of load coils, for example, would transferring or putting in place a DLC unit?

A. In connection with putting in a more modernized plant infrastructure such as fiber DLC, the opportunity to reuse the copper cable that previously had served that community exists. So the engineer is then faced with an economic decision on, No. 1, is it reasonable from a cost point of view to modify the existing copper plant and to reuse it somewhere else; or No. 2, to retire that cable in

place or to remove it completely and rather serve whatever community he was going to serve with that reused copper cable, serve it some other way so there are several economic choices that get weighed and ultimately decisions made.

If the decision is made to reuse the copper cable, then it should be reused in the prescribed practices or in accordance with prescribed practices. That is, if the cable is going to be removed, reused closer to the central office such that the length of the longest loop would be less than 18 kilofeet, then any preexisting load coils -- and by the way, there are other devices on cables besides load coils but all of those types of things would be taken into account and they would be redesigned, so to speak. So the modification would be you remove the load coils or in the case where they might have had some artificial build outs like lattice networks and built out capacitors and such, those would all be removed as well.

Q. As you may recall from the BellSouth testimony, BellSouth has testified that it is removing load coils for DSL mostly in metropolitan areas. Do you recall that testimony?

A. BellSouth is removing load coils.

Q. That's where it finds the opportunity to remove them, largely in metropolitan areas.

A. Okay.

Q. Do you recall that? If you don't, that's fine, you can move on.

A. This afternoon?

Q. No. Way back. Sorry. At the hearing.

A. At the hearing. Give me the question again. I was trying to recollect Mr. Ross saying this. Go ahead.

Q. Do you recall BellSouth's testimony that DSL is rolling out first in metropolitan areas and therefore it is being called upon to remove load coils mostly in the metropolitan areas?

A. Yes, I do.

Q. In your experience, what are the chances that these cables in metro areas have not been rearranged or modified since either the CSA guidelines or the RRD guidelines came out?

A. Well, it has been my personal experience that the amount of churn, that is, services moving in and out and the requirements associated with the churn to perhaps relieve and rearrange the plant is certainly greater in the metropolitan areas than --

urban areas than it is in more rural environments. So to that extent and given the fact that CSA guidelines have been here since 1980 or some 20 years now, there has been at least in my mind tremendous opportunity to address the plant in metropolitan areas.

Q. Do you remember during the hearing Mr. Edenfield questioning you about the videotape BellSouth showed of load coil removal?

A. Yes, I do.

Q. And how large was that cable that was on the videotape, do you recall?

A. 2700-pair pulled cable.

Q. In your experience, how many spares would be found in a cable of that size?

A. Well, in order to explain that, I have to step back a little bit. Typically outside plant engineers build cable for the service requirement, that is, when the data goes in service how many facilities are required as of that date, plus some modicum of spare which usually is three to five years' worth of growth that they foresee and the cable is sized accordingly.

When I say accordingly, cables come in discrete size as far as their manufacturer. The

next size cable that would satisfy the requirement is generally the one that is selected. There are other criteria that come into effect, for example, if the entrance facilities into a central office are relatively filled, then the engineer might choose to up size the cable as well at least in the first couple of sections leaving the office. But all things considered, a cable size of 2700, for example, that was selected would typically start serving its purpose and the engineering forces would monitor that cable so that at the proper point in time when and if it came some relief could be planned and engineered and constructed so that the facilities would never totally exhaust and lines be held for service pending a new relief cable.

So this monitoring process goes on and typically we don't start monitoring cables when they are at very low fill rates, fill rate being the amount of workers over the total amount of pairs available, but rather we start to monitor it when it gets close to what we call a trigger point.

The trigger point is a flag that goes up and alerts the engineer that a particular cable is at a certain percent fill. And the engineer can set that at any number he really desires but generally

in the industry 85 percent is a typical number. So whether a 2700-pair cable is working 85 percent or has only 15-percent spare, so on a 2700 that would be roughly 400 spare pairs would be left, the engineer would get an alert and it would say 80-percent filled, therefore he has 400 spares. He looks at what the growth rate has been over the last couple of years and if 400 pairs will satisfy the immediate future nothing will be done. If, on the other hand, that particular route is growing at 500 pairs a year, he knows he has less than a year's worth of facilities left before he exhausts so he would typically start designing a new job.

So to answer your question in a rather long-winded way, there were about 400 spares typically in that cable even if it was at its trigger point.

Q. Is it your belief that the engineer could have elected to remove more than 25 load coils from that cable?

A. Well, certainly the opportunity, if there were 400 spare pairs, the opportunity would exist to remove more than 25 or 50. If the cable should not have been loaded to begin with, you know, I dare say a great deal of those should have been nonloaded but

the engineer would make that determination and the opportunity would be there.

Q. Mr. Ross asked you some questions about the differences in time of removing one load coil as opposed to 50. In your testimony you have a chart of the times it takes to remove load coils. What would you say generally is the difference in the time it takes to remove one and removing 50 load coils?

A. Generally in the world of construction the wire work is typically a small part of the total job. As you can see from even BellSouth's tape, the time it takes to set up and pump and open up and do all of those ancillary things before you actually get on the wires is what consumes most of the time. The wire work itself is a rather small portion. So whether you are removing one pair or 25 pairs, the amount of additional time is very slight, matter of minutes.

MS. BOONE: I have no further questions.

MR. ROSS: I think we are done. Let's go off the record for just a minute.

(A discussion ensued off the record.)

(Concluded 3:00 p.m.)

INDEX TO EXHIBITS

(Exhibits 148 through 152 have not been attached to the original transcript but have been retained by Mr. Ross.)

C E R T I F I C A T E

STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that the foregoing transcript was taken down, as stated in the caption, and the questions and answers thereto were reduced to typewriting under my direction; that the foregoing pages 1 through 64 represent a true, complete, and correct transcript of the evidence given upon said hearing, and I further certify that I am not of kin or counsel to the parties in the case; am not in the regular employ of counsel for any of said parties; nor am I in anywise interested in the result of said case.

This, the 17th day of October, 2000.

RENDA K. CORNICK, CCR-B-909
My commission expires on the
26th day of November, 2000.

COURT REPORTER DISCLOSURE

DEPOSITION OF: JOSEPH P. RIOLO

Pursuant to Article 8.B. of the Rules and Regulations of the Board of Court Reporting of the Judicial Council of Georgia which states: "Each court reporter shall tender a disclosure form at the time of the taking of the deposition stating the arrangements made for the reporting services of the certified court reporter, by the certified court reporter, the court reporter's employer, or the referral source for the deposition, with any party to the litigation, counsel to the parties or other entity. Such form shall be attached to the deposition transcript," I make the following disclosure:

I am a Georgia Certified Court Reporter. I am here as a representative of Brown Reporting, Inc.

Brown Reporting was contacted by the offices of BellSouth Telecommunications to provide court reporting services for the deposition. Brown Reporting will not be taking this deposition under any contract that is prohibited by O.C.G.A. 15-14-37(a) and (b).

Brown Reporting has no contract/agreement to provide reporting services with any party to the case, any counsel in the case, or any reporter or reporting agency from whom a referral might have been made to cover this deposition. Brown Reporting will charge its usual and customary rates to all parties in the case, and a financial discount will not be given to any party to this litigation.

/s/ Renda K. Cornick, CCR-B-909 101000

Signature of attorneys present: Date:

/s/ No attorney signature

/s/ No attorney signature

/s/ No attorney signature

/s/ No attorney signature

Return this form after review and/or signatures to the court reporter for inclusion in the record. Please use reverse side for additional signatures.

CHAIRMAN DEASON: Very good. The next scheduled witness was --

MS. KAUFMAN: Commissioner Deason, I think that we had some matters that were left over from the hearing on that Thursday night. We had moved or identified for the record items Number 144, 145, 146, 147. They were identified, they need to be moved into the record.

CHAIRMAN DEASON: 144, 145, 146, and 147?

MS. CALDWELL: That is correct.

CHAIRMAN DEASON: They were all identified, but we did not get to the stage of the hearing to actually move those into the record?

MS. CALDWELL: That is correct.

CHAIRMAN DEASON: Okay. Exhibits 144 through 147, any objection to the admittance of those exhibits? Hearing no objection, show then that Exhibits 144 through 147 are admitted.

(Exhibit 144 through 147 admitted into evidence.)

CHAIRMAN DEASON: Witness McPeak.

MR. SLOAN: Yes, Your Honor. This is Mike Sloan. BellSouth has waived Mr. McPeak's appearance, and we would move his direct testimony and revised rebuttal testimony as well as a corrected exhibit into evidence at this time.

CHAIRMAN DEASON: Okay. You are moving the prefiled testimony into the record. Without objection? Hearing no objection, show the prefiled testimony admitted. There is an exhibit accompanying that prefiled testimony, correct?

MR. SLOAN: Yes. There are eight exhibits attached to the July 31st direct testimony. There is one exhibit attached to the August 28th revised rebuttal testimony.

CHAIRMAN DEASON: All of those exhibits then will be identified as Composite Exhibit Number 152. And without objection Exhibits 152 shall be admitted.

(Composite Exhibit 152 marked for identification and admitted into the record.)

I. INTRODUCTION

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

A. My name is Eric McPeak. My current business address is 111 East Spring Street, El Dorado Springs, MO 64744.

Q. By whom are you employed and what is your position?

A. I am employed by QSI Consulting and my current position is Director of Technical Services.

Q. Please summarize your professional experience.

A. I started my telecommunications career in 1989 as a material purchasing specialist for Contel of Missouri. Contel of Missouri was an incumbent local exchange carrier managing numerous exchanges throughout rural portions of the West and Midwest before it was purchased by GTE North incorporated. My duties at Contel included purchasing all major and minor materials for approximately twenty (20) telephone exchanges in the Southwest District. I also supervised the distribution of all materials for company construction, contract construction, and splicing crews for the District. I worked directly with Engineering and Network Provisioning on all outside plant applications for both maintenance and new construction projects. Beginning in May 1990, I served Contel as an outside plant service technician in the customer services division. My duties included installing outside construction facilities; splicing copper and fiber cable; trouble shooting aerial, buried and underground cable problems; installing

and repairing residential and business services, both analog and digital loop carrier systems, key system and PBX. I continued the same responsibilities as an employee for GTE of Missouri until 1997. From 1997 to 1999, I held the position of President of Integrated Communications Corporation (ICC). My duties included managing the installation and repair of PBX and key systems applications, conducting cellular and paging sales and service, and developing comprehensive business planning in both engineering and competitive local service engineering applications. In March of 1999 my current employer, QSI Consulting, purchased ICC. I am currently employed as the Director of QSI's Technical Services Division, where I provide telecommunications companies with advice and counsel for direct network planning, management and cost-of-service support. My specific areas of expertise include network engineering, facility planning, project management, business system applications, incremental cost research and issues related to the provision of unbundled network elements, including local loops.

Q. Please summarize you educational background.

A. I completed two years of course work in Electrical Engineering at Southwest Missouri State University in Springfield, Missouri. In addition, I completed numerous industry training courses provided by Nortel Networks, Contel Telephone and GTE including training courses at the

Contel Training Center, St. Charles, Missouri in outside plant construction practices, major and minor cable splicing (copper and fiber), installation and repair of residential and business telephone service, key and PBX installation, coin telephone installation and all OSHA safety practices.

Q. What is the purpose of your testimony?

A. This testimony will address the proper times and methods associated with all activities involved in the conditioning of loops for xDSL services. I will also be addressing the proposed rates submitted by BellSouth in this proceeding.

II. xDSL Background

Q. Please define loop conditioning and explain why loop conditioning is required within the network.

A. "Loop Conditioning" is the process wherein the electrical characteristics of a copper pair are altered, generally by adding equipment, so that the characteristics of the loop are consistent with a given service. Recently, however, with the onset of xDSL services, the term "loop conditioning" has been expanded to incorporate the process of removing these same pieces of equipment to return a copper pair to its original, unaltered state. This type of "loop conditioning" consists of the removal of load coils, repeaters and bridge taps from the copper loop. In order for advanced services such as xDSL to operate within the network, copper loops have to meet certain specifications. Certain copper facility applications that exist in the

network, which I will refer to as "disturbers", affect the copper loop in a way that will not allow high bandwidth services such as xDSL to work properly. Load coils, bridge taps and repeaters all fall within the "disturber" category. The disturbers are actually designed to assist in the operation of voice grade services within the network. Advanced services such as xDSL operate at a much higher bandwidth than do voice services and therefore require much different copper facility specifications.

Q. What is DSL?

A. DSL is a technology initially developed to increase the digital transmission speeds over traditional copper-based loop facilities. ADSL, or *asynchronous digital subscriber line*, is a member of a larger family of technologies generally referred to as xDSL. The "x" in xDSL is generally used as a placeholder to identify more specific derivations of the digital subscriber line technology (i.e.HDSL –high speed DSL; SDSL – synchronous DSL VDSL – very high speed DSL; UDSL- universal DSL; and RDSL – rate adaptive DSL). Generally, xDSL technologies use a system of digital modems placed on each end of a transmission medium (generally two or four copper wires) to transmit digital information at rates far exceeding those typically achieved by other types of copper loop transmission.

xDSL technologies support a number of consumer data applications including wide area networking for purposes of telecommuting as well as

high-speed internet access that dwarfs the speed achieved by a standard 56Kbps modem. In sum, advanced services drive ordinary telephone lines at speeds far greater than conventional dial-up modems, and allow consumers to enhance their Internet use and maximize efficiencies and productivity. The efficiencies and improvements offered by advanced services allow for the performance of a variety of tasks that make life easier and more productive. A few examples of ways in which consumers can take advantage of advanced services include the following:

(1) linking multiple personal computers to single digital subscriber line connections for a fully "networked" home office;

(2) downloading software and documents from the Internet at extremely high rates of speed; and

(3) conducting stock trades in real time fashion.

Q. How does xDSL work?

A. Generally speaking, xDSL modems are placed at each end of a non-loaded copper loop to transmit a digital data stream between the customer's premise and a packet switched network node that resides in the local exchange carrier's central office ("C.O."). Using complex digital compression techniques, ADSL supports substantial bandwidth on the "downstream" channel (i.e. from the packet switched network to the customer's premises) while supporting a more modest transmission capacity on the "upstream" channel (i.e. from the customer's premises to the C.O.). This "asynchronous" bandwidth capability separates ADSL from other xDSL technologies like HDSL which provides T1 transmission

(1.544 Mbs) in both directions. ADSL is engineered to overlay existing analog telephone service and basic rate ISDN[1] services by avoiding the use of frequencies in the range of 0 to 50 kHz where POTS and ISDN generally reside within the transmission medium. Stated another way, a customer can realize the high-speed data capabilities of the ADSL technology while at the same time continuing to use the same telephone line for traditional voice services.

Q. Do the characteristics of the copper pairs used as a transmission medium for the xDSL technology impact its efficiency?

A. Yes, they do. In fact, xDSL technologies (and ADSL in particular) are limited in the extent to which they can utilize existing copper loops that exceed a particular length (i.e. it is generally accepted that using a loop in excess of 18,000 feet for xDSL transmission is likely to result in substantial service degradation or even an unacceptable bit error ratio). Likewise, individual characteristics beyond the simple length of the loop can impact the quality (i.e. bit rate or bit error ratio) of the xDSL transmission. For example, an excessive deployment of bridged tap, load coils or repeaters within the loop can render a loop unusable for xDSL transmission.

[1] ISDN (Integrated Software Defined Network) is another family of technologies that attempts to increase the bandwidth available over copper loop facilities. ISDN services generally use central office switching software (as opposed to packet switching equipment) to manage the digital data stream between the central office and the customer's premises.

Q. How does the presence of load coils, bridged tap and/or repeaters degrade the quality of the ADSL transmission?

A. Generally speaking, these disturbers interfere with the ability of the two xDSL modems to communicate effectively. This inability to communicate effectively can either rob the system of potential data transmission speed (by reducing the amount of data that can be transferred per second), or it can degrade the transmission to an extent where the bit error ratio is unacceptable (i.e. the ratio of legitimate "bits" of data received by the device at either end compared to erroneous "bits" is so high that the transmission is rendered unusable). I will describe how each "disturber" affects the xDSL transmission in greater detail below.

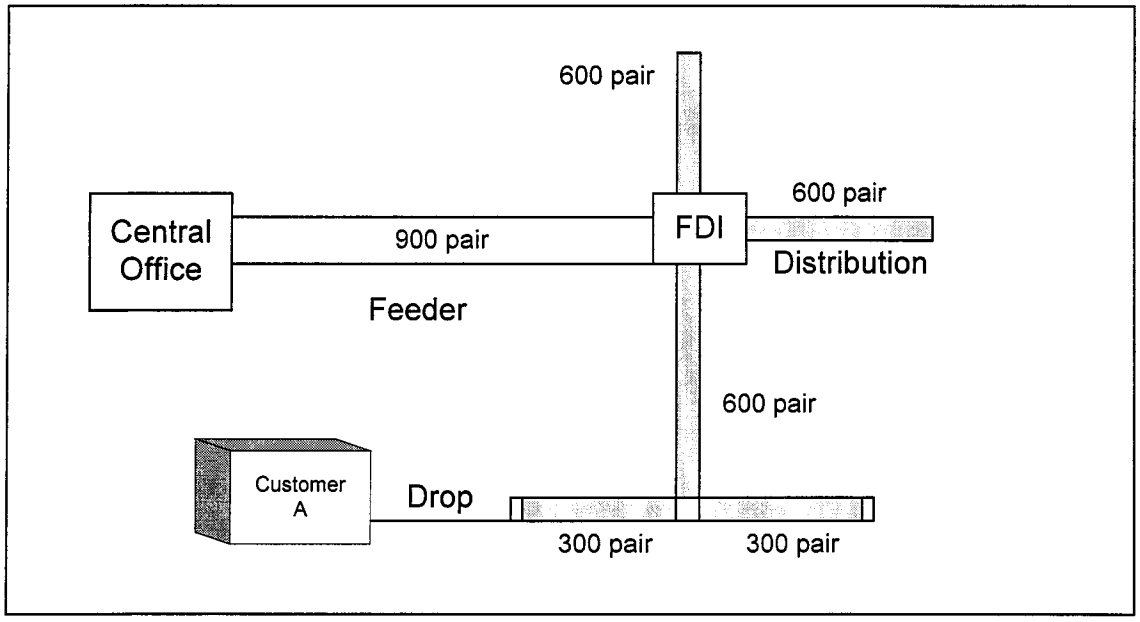
Q. What is bridged tap?

A. Bridged tap is the result of an outside plant deployment strategy which attempts to maximize the use of a local exchange carrier's loop investment. Local exchange carriers generally provision loop facilities in three fairly discrete segments: (1) feeder or F1; (2) distribution or F2 and (3) drop. Feeder facilities generally extend from a central location which houses the exchange's central office switch. Feeder facilities are generally characterized by larger cables (housing anywhere from 900 to 2400 copper pairs) that carry traffic to a defined point within the exchange where they are cross-connected (usually via a feeder distribution interface "FDI") to the distribution portion of the network. It is the distribution portion

of the network that then spreads out across a given defined area of the exchange (generally referred to as a distribution area or "DA") to extend a given loop to a particular neighborhood or group of customer premises. The drop portion of the network then extends the distribution cable (generally terminated at a drop pedestal or an aerial equivalent within a neighborhood) to a given customer premise. Diagram 1 below provides a simplified look at the these three loop components.

To better understand the use of bridged tap, we must look more closely at the distribution portion of the network. Each distinct distribution route from the FDI is generally referred to as a "tap." A given tap is used to connect a number of active customers to the feeder network to complete a circuit from the customers' premises to the central office. Each tap may incorporate a number of different splice points wherein the distribution cable is tapered to smaller cables that branch out to different neighborhoods.

Diagram 1

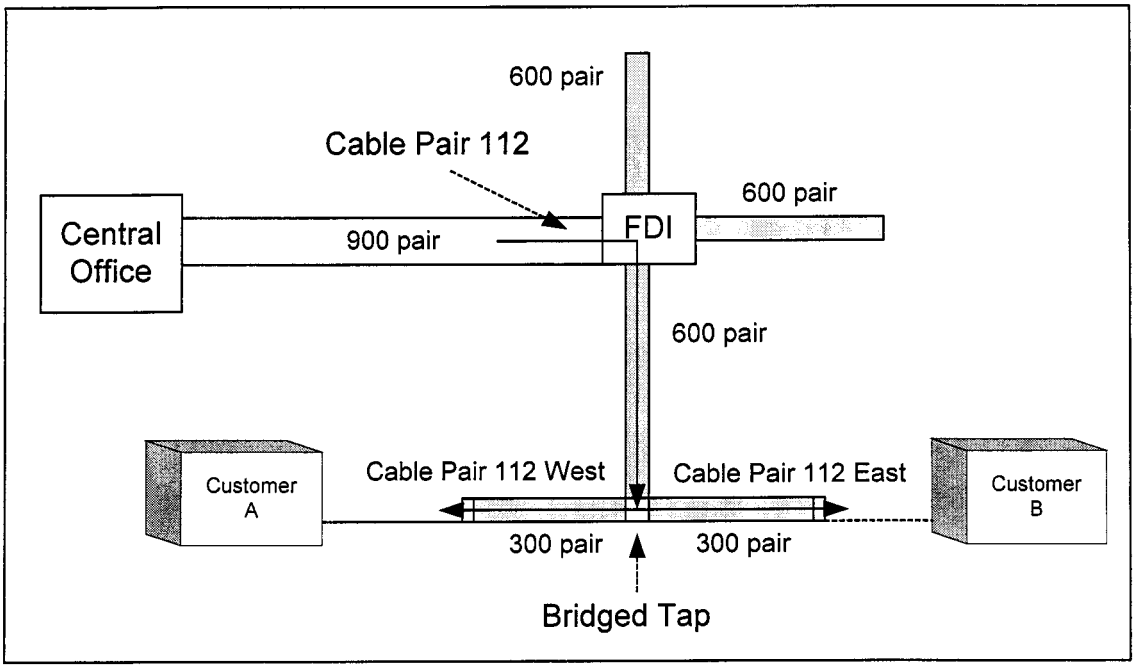


Although distribution cables generally grow smaller as we move from the FDI to the customer premise, the network is generally engineered to accommodate a larger number of distribution cables than feeder cables. Generally, there could be several distribution cables located at the FDI that are being fed by one feeder cable. This results from engineering the network such that individual feeder pairs can be provisioned to different portions of the distribution network as needed, without the need to provision additional distribution pairs. This is accomplished by two methods: (1) the cross-connect capability of the FDI itself (i.e. the ability to cross-connect a single feeder pair with any number of distribution pairs); an, (2) bridged tap.

Q. Please explain bridge tap in more detail.

A. Outside plant engineers generally design the network where a single distribution pair is actually connected to at least two downstream distribution pairs that may branch in two different directions. In other words, the tap is "bridged" such that it can provide service in either of two geographic areas (generally it is "bridged" to provide either an east or west circuit). This is accomplished generally within a cross-connect pedestal wherein a single distribution pair is simply cross-connected to two downstream pairs. Of course, a drop is attached to only one of these bridged pairs to provide service to an individual customer, but the "bridge" remains in place so if the customer leaves, that same distribution pair could be used in another geographic area to meet future demand. This "bridged tap" architecture allows the local exchange carrier to maximize the flexibility of its network without the expense that would be required to engineer direct circuits (i.e. a single pair reaching from the C.O. to each customer premises). Diagram 2 below depicts a cable pair that "appears" at two different locations using the "bridged" architecture as described above.

Diagram 2



In Diagram 2 above, Cable Pair 112 is "bridged" such that it could be used to provide service to Customer A or Customer B. In this example the pair is connected to a drop that serves Customer A; however, the "bridge" allows it to be used just as easily to provide service to Customer B (though it can provide service to only one of those customers at any one time).

Q. Why does bridged tap degrade the quality of an xDSL transmission?

A. Simply put, bridged tap increases the electrical loop length of the circuit in question. An electrical signal traversing cable pair 112 will actually travel the entire distance of the pair extending to both customer A and customer B, thus increasing the resistance and loss associated with the

entire loop. This extended electrical loop length significantly reduces the efficiency of the ADSL transmission.

Q. What are load coils?

A. Load coils can be described as inductance coils used to improve the transmission performance of the voice band channel, thus increasing the allowed loop length for acceptable voice transmission. Generally speaking, a load coil on a loop "amplifies" a given analog signal by boosting the entire voice band channel so it can be "heard" on loops extending farther from the original point of analog transmission (generally the central office switch).

Q. Can a loaded loop effectively accommodate an xDSL signal?

A. No, it cannot. xDSL technology operates in the high speed frequency range of a copper loop. Load coil inductance alters the rate at which data is transmitted through the loop, and creates unacceptable fluctuations in bit rate speed and quality thereby degrading the overall performance of the transmission. Stated differently, the load coil's general purpose of "amplifying" an analog signal is not conducive to the digital communication that occurs between the two ADSL modems. By electronically amplifying the digital signal, the load coil's inductance alters the signal in a manner that is not recognized by the ADSL modem at the other end of the communication pathway.

Q. What is a repeater and what is it used for?

A. Repeaters are used in a number of different scenarios in provisioning outside loop plant. Repeaters are either Voice Frequency Repeaters ("VFRs") or digital repeaters. Voice Frequency Repeaters can be categorized in two classes: Central Office-Mounted and Field Mounted. Central Office-Mounted repeaters are required on customer loops when the 1000 Hz transmission loss exceeds the 8.0 dB limit (i.e. the voice grade standard). Field-Mounted VFR's are generally used for circuits with resistance greater than 3000 ohms or where more than the maximum available decibel gain from one terminal repeater is required. To satisfy minimum return loss requirements, repeaters must be located at or near the facility's electrical midpoint and centered as close as possible between two load coils.

Q. How does a repeater degrade the quality of an xDSL transmission?

A. Repeaters placed in a typical local loop are designed to operate under voice frequency standards only. Repeaters significantly distort the data stream resulting in high bit-rate error ratios that would ultimately result in unacceptable transmission levels for ADSL, which optimizes high band-width applications using digital transmission.

III. Multiple Loop Conditioning Practices

Q Mr. McPeak, have you had the opportunity to review BellSouth's proposed cost model?

A. Yes I have.

Q. Has BellSouth over inflated its loop conditioning rates?

A. Yes it has. In at least three significant ways, BellSouth has used inputs in its cost model that improperly lead to over-inflated loop conditioning rates. First, BellSouth unjustifiably presumes that only ten (10) pairs can be conditioned per conditioning activity. In addition, BellSouth has proposed extremely high labor activity times for most activities associated with loop conditioning. Finally, BellSouth has assumed that 90% of conditioning for load coils will be done in underground plant facilities and 10% will be done in aerial or buried plant facilities, which not only misrepresents BellSouth's network but also appears to conflict with other portions of BellSouth's cost model.

Q. Why is BellSouth's assumption that only 10 pair can be conditioned per activity improper?

A. I have a performed an analysis which conservatively estimates that approximately 224 loops less than 17,500 feet and 75 loops greater than 17,500 feet are available for conditioning per each location visited by a BellSouth technician.

Q. Can you please explain how you arrived at those numbers and why you believe them to be conservative?

A. Yes. I will begin by discussing loops under 17,500 feet. First, I have assumed that the average BellSouth cable contains 600 copper pairs.

Q. Is 600 a reasonable number?

A. Yes, based on my experience, 600 is a conservative estimate. Mr. Keith Milner of BellSouth in his testimony describes a cable as containing 1200 copper pairs. See Milner testimony at 9:15-16. The number I have used is half that.

Q. What is the next step in your analysis.

A. I then used a fill factor of 58%, which means that of the 600 loops, 58% or 347 currently are being used by BellSouth to provide voice service. I arrived at this number by using a weighted average. First, I took BellSouth's estimates for the average distribution (47%) and feeder (74%) fill factors. I then accounted for the fact that, in my experience, generally 60% of a network is made up of distribution and 40% of feeder. Based on this assumption, I came up with a weighted average of 58%. ((47% *60%) + (74% * 40%) = 58%.)

Q. What did you do next?

A. I assumed that BellSouth would set aside a certain amount of pairs for the future provision of services. To estimate the number of lines that should be reserved for future voice demand, I relied on population growth data

from the U.S. Census Bureau, Population Division. Based on the most recent data, Florida's population is growing at an annual rate of 1.4%. I applied a 5.6% population growth rate (over a 4 year time horizon) and assumed a 99% penetration rate for telephone subscribership in order to calculate the number of lines that should be reserved to accommodate new voice service demand. My understanding from my colleague Mark Stacy is that most penetration rates are significantly less than 99%. The 5.6% growth rate utilized in the analysis would allow for 4 years of growth at the most recently observed rate of 1.4% annually, a time period that is sufficient to allow BellSouth to respond to both voice and data demand and to plan and implement network upgrades to accommodate all customer demand in the long term. Based on these numbers, 19 pairs would need to be reserved for future voice applications.

Q. You state, however, that 29 pairs would need to be set aside. How do you arrive at that number?

A. I have further assumed that one-half of all new customers will add a second line. In other words, in order to calculate the number of lines to be set aside for future voice demand over the next 4 years, 99% of new residents are assumed to require new voice service, and one-half of those new customers will require 2 lines. Based on these numbers, I have estimated that 29 lines will need to be set aside.

Q. What did you do next?

A. As stated above, using a fill factor of 58%, 253 of the 600 pairs per cable are spare. I then subtracted the 29 lines that BellSouth would set aside for future customers to arrive at 224 loops.

Q. Did you employ the same analysis to reach the conclusion that 75 loops of greater than 17,500 feet are available to be conditioned at each location.

A. Yes I did.

Q. Although 224 pairs under 17,500 feet and 75 pairs over 17,500 feet may be available for conditioning at an existing location, how many pairs have you assumed should be conditioned at one time by BellSouth.

A. In my calculations, I have presumed only that BellSouth will condition 25 pairs at a time. *See* Exhibit EM_7.

Q. Can BellSouth achieve the efficiencies associated with multiple loop conditioning in 25 pair increments without impairing the service of existing voice customers, or impairing the ability of BELLSOUTH to serve future voice customers?

A. Absolutely. As my analysis indicates, BellSouth can condition well over 25 loops without disturbing existing customer service and while still maintaining reserve loops for future voice service demand.

Simply, it is neither impractical nor inefficient to assume that multiple pairs can be conditioned at a time without impairing BellSouth or other providers' ability to serve voice customers..

Q. Moreover, isn't it true that you do not account for the fact that pairs under 17,500 feet currently used to provide voice service still may be conditioned without degrading that service?

A. That is correct. In my analysis, I conservatively have assumed that 347 pairs per cable are "filled" and unable to be conditioned. In reality, however, BellSouth could condition and provide a variety of xDSL services over those loops without degrading existing voice services.

Q. With 224 and 75 pairs available for conditioning, respectively, would it be likely that BellSouth would be conditioning loops unnecessarily if it conditioned 25 at a time?

A. No. A report published by Dataquest in May of 1999 entitled "Changing Traffic Patters: Data Versus Voice concludes that voice traffic is growing at an annual rate of 6.9% while data traffic is growing at a 36.5% annual rate. Although this data focuses on traffic rather than line demand, it clearly demonstrates that the relative demand for data is greater than that of voice, and implies that more lines will be needed to serve data customers than voice customers in the future. BellSouth itself has predicted a huge increase in demand for DSL related services in both the

wholesale and retail market. [2] Given the strong demand by both BellSouth and competitive providers of advanced services, it seems much more likely that the supply of conditioned loops will be exceeded by the demand. Moreover, as I stated previously, conditioned loops under 18,000 feet still may be used to provide voice services. Realistically, therefore, it seems to me that the concern of this Commission should not be whether there will be a demand for xDSL capable loops, but rather BellSouth's reluctance to avail itself of the efficiencies associated with conditioning multiple loops in increments of 25 or larger.

Q. Are there other reasons why it is reasonable to assume that multiple loops should be conditioned in 25 pair increments?

A. There are many reasons for taking advantage of the efficiencies associated with conditioning multiple pairs. As I will discuss later in my testimony, the time estimates proposed by BellSouth, which are utterly unjustifiable on their face, also will be lowered when conditioning a minimum of 25 loops for each dispatch. In addition, the tools technicians use to splice connections are designed to condition multiple pairs. ILECs generally use either Lucent 710 25-pair splice connectors or 3M MS^2 25-pair splice connectors (See Exhibit EM_8). With the advent of such tools and other similar process enhancements, single pair splicing has become an outdated practice in the telecommunications industry for decades.

---

[2] See http://biz.yahoo.com/bw/000605/ga_bellsou_3.html.

Still another reason for conditioning multiple pairs at a time is that multiple re-entries to splice closures in order to condition loops can cause serious degradation of the wire insulation and can cause failure of the wire. In other words, accessing the same network components over and over again has the effect of wearing them out. Common sense dictates that it would be more efficient and would cause less wear and tear if access occurred as infrequently as possible. Less frequent access can be accomplished by conditioning multiple loops at a time.

Finally, as I will discuss later in my testimony, the cable containing the pairs generally are divided up into twenty-five (25) pair binder groups. In most cases, the twenty five pair binder groups are spliced using splicing connectors that actually connect twenty-five pair at one time. This simply represents another reason why I have chosen to use 25 pair as my base number.

Q. To conclude this issue Mr. McPeak, despite the fact that well over 25 loops can be conditioned at one time, your recalculated rates assume that how many loops on average should be conditioned per conditioning dispatch?

A. I conservatively have assumed that BellSouth will condition 25 per conditioning activity for both loops that are under 17,500 ft. and loops over 17,500 ft.

IV. Time Intervals for Loop Conditioning Activities

Q. You stated earlier that BellSouth also has overstated the times involved in conditioning pairs, leading to over-inflated rates for conditioning. Were BellSouth's time inputs supported?

A. I found no support in BellSouth's testimony to support the time intervals it has proposed.

Q. Would you please provide a break down of the times that BellSouth has used in determining the costs for loop conditioning activities.

A. BellSouth has broken down the activity categories as follows:

FUNTCTION	JFC/PAYBAND	DESCRIPTION
Service Inquiry	SDWC	Systems Designer w/Sales Com
Service Inquiry	230x	Customer Point of Contact – ICSC/LCSC
Engineering	JG57	Job Grade 57
Engineering	WS10	Wage Scale 10
Engineering	4M1X	Network
Connect & Turn-Up and Test	420x	Outside Plant Constr (OSPC)
Connect & Turn-Up and Test	420x	Outside Plant Constr (OSPC)
Travel	420x	OSPC

Q. Please provide a detailed description of the activities performed for each conditioning function category and the amount of time BellSouth has included in its cost study for each activity.

A. Cost Element A.17.1, A.17.2, A.17.3

a. Service Inquiry – CRSC/Acct. Team receives Service Inquiry (SI) from CLEC; forwards to OSPE for handling. Once OSPE responds with Estimated Completion Date (ECD), follows up w/OSPE until job is complete. (Time assumed in BellSouth Cost Study = 30 minutes.)

b. Service Inquiry – LCSG receives SI, validates for accuracy & processes for billing. (Time assumed in BellSouth Cost Study = 60 minutes)

c. Engineering – OSPE receives an SI from CRSG, verifies load coil/equipment locations in plats. (Time assumed in BellSouth Cost Study = 2 hours)

d. Engineering – AFIG receives job from OSPE and posts records. (Time assumed in BellSouth Cost Study = 3 hours)

e. Engineering – OSPE Codes, assigns job number and returns SI to CRSG. (Time assumed in BellSouth Cost Study = 1hour)

f. Connect & Turn-Up Test – (Underground) OSP Construction sets up manholes, opens/closes splices, deloads pairs (Time assumed in BellSouth Cost Study = 4.5 hours)

g. Connect & Turn-Up Test- (Buried/Aerial) OSP Constructions set-up, open closes splices, deload spares. (Time assumed in BellSouth Cost Study = 3.5 hours)

h. Travel – OSP Construction travels to load coil sites. (Time assumed in BellSouth Cost Study = 30 minutes)

Q. Please provide a table comparing the BELLSOUTH activity times in its cost study to the appropriate times you used to recalculate the loop conditioning costs.

A.

FUNCTION	JFC/PAYBAND	BellSouth Activity Time	Proper Activity Time
Service Inquiry	SDWC	30 minutes	15 minutes
Service Inquiry	230x	60 minutes	15 minutes
Engineering	JG57	2 hours	30 minutes
Engineering	WS10	3 hours	30 minutes
Engineering	4M1X	1 hour	30 minutes
Connect & Turn-Up and Test	420x	4.5 hours	1.5 hours
Connect & Turn-Up	420x	3.5 hours	42 minutes
Travel	420x	30 minutes	15 minutes

Q. Please provide an explanation to support the reduction in the BellSouth activity times and the method used to derive the proper activity times.

A. **Service Inquiry** – BellSouth assumes that it takes 90 minutes to process and follow up on an order to establish the proper billing to the customer. Generally, most all service order activity is processed in electronic format, and I believe that my colleague Mark Stacy has testified to the fact that in fact BellSouth is required under federal law and by this Commission to provide electronic ordering and provisioning. The customer service representative accesses the electronic database, enters the appropriate information in electronic format and then processes the appropriate billing information. Since this whole process can be done electronically, the only real time assumed is the time for entering the information into the computer. Therefore, I have adjusted the activity time to 30 minutes for the total Service Inquiry process.

B. **Engineering** – BellSouth assumes that all engineering activities take 6 hours. When an Engineer receives an order from customer service (which can usually be transferred electronically), he reviews the order for the pertinent information. He then starts to review the outside plant records to see where the inhibitors lie within the loop. Since many companies have transferred outside plant records into Computer Aided Design Systems, the Engineer has the ability to electronically review the records. After locating the inhibitors within the loop, the engineer simply processes the information electronically and sends it to Customer Service so that a technician may be dispatched. Once again, since the Engineer has the

ability to process the majority of the information electronically, the proper time for the activity is 90 minutes.

C. **Connect & Turn-Up and Test** – BellSouth assumes that it takes 4.5 hours to perform conditioning activities in underground plant facilities and 3.5 hours in buried or aerial plant. I have performed these activities myself, however, and based on my actual experience I know that these times are drastically overstated. First, BellSouth assumes that it takes 2 hours to set up a manhole. Manhole and worksite preparation, however, can easily be done in less than 30 minutes. BellSouth then assumes that it takes 1 hour to open and close a splice closure. This task can be performed in less than 15 minutes. BellSouth assumes that it takes 1.5 hours to condition the pairs. This can easily be done in less than 15 minutes. As you can see, BellSouth drastically overstates the work times for all of the activities. Similar overstatements appear in BellSouth's proposed time for buried and aerial conditioning.

D. Travel – BellSouth assumes 30 minutes for travel time. Each technician is assigned to a designated geographic work area. The areas are typically arranged close to a central office or reporting location. This allows dispatchers to dispatch technicians in an efficient manner, thereby minimizing travel time from one work location to another. Almost all technicians today are equipped with lap top computers or some type of electronic hand held device that allows them to receive dispatches and

detailed information from remote locations about their next job. With this technology available travel time is significantly decreased for the technician. Loop conditioning activities almost always take place within 18,000 ft. from the central office. Since "inhibitors" are typically spaced approximately 6,000 ft. apart, the average distance from one conditioning location in the loop to the next is just a little more than one-mile, making driving time very minimal for the associated activities. The appropriate time for travel should be 15 minutes.

Q. You stated previously that you spent a significant amount of time working as an Outside Plant Technician for an ILEC. Are your time revisions based on your experience in actually performing the loop conditioning activities you have addressed

A. Yes they are.

Q. BellSouth includes costs for additional activity times in its cost study. Do you agree with the application of these additional costs?

A. No I do not. BellSouth states that when removing bridge taps, 20% of the time it will be required to remove additional bridge taps. It is equally as likely, however, that only one bridge tap would have to be removed on a loop less than 18,000 feet. I have assumed that on average three bridge taps will have to be removed per loop. This accounts for the fact more or less than three bridge taps could have to be removed from a given loop. Simply, BellSouth should not be entitled to assess additional charges

based on invalid assumptions that "additional" bridge taps hypothetically may need to be removed.

V. CONDITIONING ACTIVITY BASED ON TYPE OF PLANT

Q, You stated previously that BellSouth's cost model is based on the presumption that 90% of conditioning for load coils will be done in underground plant facilities and 10% will be done in aerial or buried plant facilities. Do you agree with that assumption?

A. No I do not. If 90% of all conditioning takes place in underground plant facilities, this assumes that most loops are contained in underground facilities nearly 18,000 ft. from the Wire Center. This is a drastic overstatement of the presence of underground facilities within the network. Typically as a cable extends from the Wire Center it transitions from Underground Plant to Aerial Plant and then to Buried Plant.

Q. In fact, BellSouth's own cost model seems to contradict its assumption that 90% of conditioning occurs in Underground facilities, does it not?

A. Yes. While BellSouth assumes for the purpose of load coil removal that 90% of such conditioning will occur in underground facilities, BellSouth inexplicably assumes that bridge tap removal will occur equally in underground, aerial and buried facilities.

Q. Is there any explanation for BellSouth's contention that somehow the network architecture is different when removing load coils versus removing bridge taps.

A. No there is not. The same assumption that conditioning occurs equally in each of the types of facilities should be applied not just for bridge tap removal, but also for the removal of load coils and repeaters alike.

Q. Please Define Underground Plant and the process required to remove Load Coils, Repeaters and Bridge Taps from Underground Plant.

A. Underground plant consists of cable that is installed in underground conduit which passes through a manhole system. There are several steps necessary to de-load or remove a load coil from a manhole where the splice closure exists in the underground network.

1) Travel Time - The splicing technician must first travel to the site where the work is to be performed. Each technician is assigned to a designated geographic work area. The areas are typically arranged close to a central office or reporting location. This allows dispatchers to dispatch technicians in a efficient manner minimizing travel time from one work location to another. Almost all technicians today are equipped with lap top computers or some type of electronic hand held device that allows them to receive dispatches and detailed information from remote locations about their next job. With this technology,

available travel time is significantly decreased for the technician. Since "disturbers" are typically spaced approximately 6,000 feet apart, the average distance from one conditioning location in the loop to the next is a little more than one mile, making driving time very minimal for the associated activities.

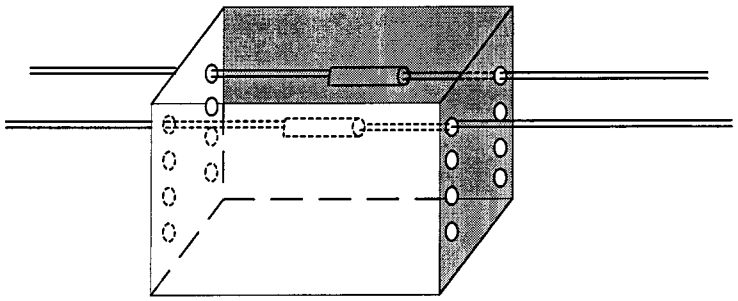
2) Prepare work site with safety equipment – Some manholes are located in the middle of roadways or streets. In order to comply with safety regulations, the technician must properly prepare the work location with traffic signs and cones.

3) Open and prepare manhole – The technician must remove the lid from the manhole and pump any water from the manhole. He must also test the manhole for oxygen levels and purge the manhole with fresh air to ensure safe working conditions. Pumping water from the manhole and purging the manhole with air can be performed simultaneously.

4) Enter manhole, locate and open splice case – Cables in manholes are racked horizontally along the walls of the manhole. Typically, cables are racked on two (2) of the four (4) walls of the manhole. Depending on the size of the manhole, there are one (1) to four (4) cables racked in the manhole per cable entry side (see Manhole Diagram, below). The splice closures are typically marked with a combination of numbers and letters that identify the cable contained within the closure. Splice closures are typically large stainless steel cylinders sealed with

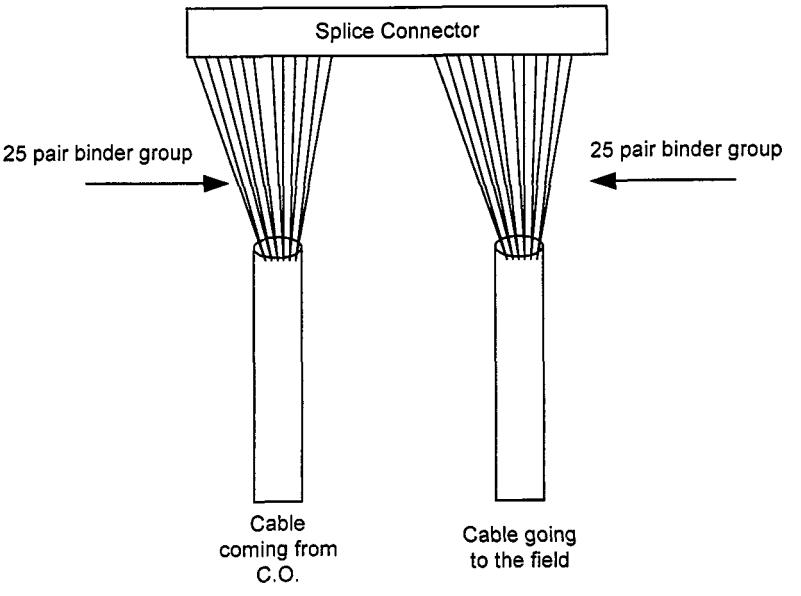
bolts at the top and bottom of the closure. Most closures will have six (6) to eight (8) bolts that will need to be removed. Technicians carry ratcheting tools that can remove the bolts easily and quickly.

Manhole Diagram



(5) Cut cable pair from "disturber" stub and re-splice pair – Cables are divided up into twenty-five (25) pair binder groups. Within the binder groups, the individual pairs are color coded for identification purposes. This enables the technician to easily locate the pair or binder group to be conditioned. In most cases, the twenty-five pair binder groups are spliced using splicing connectors that actually connect twenty-five pair at one time. An example of this type of splice is the MS^2 splice connector, as shown in Diagrams 1 and 2, below. Also see Exhibit_EM_8.

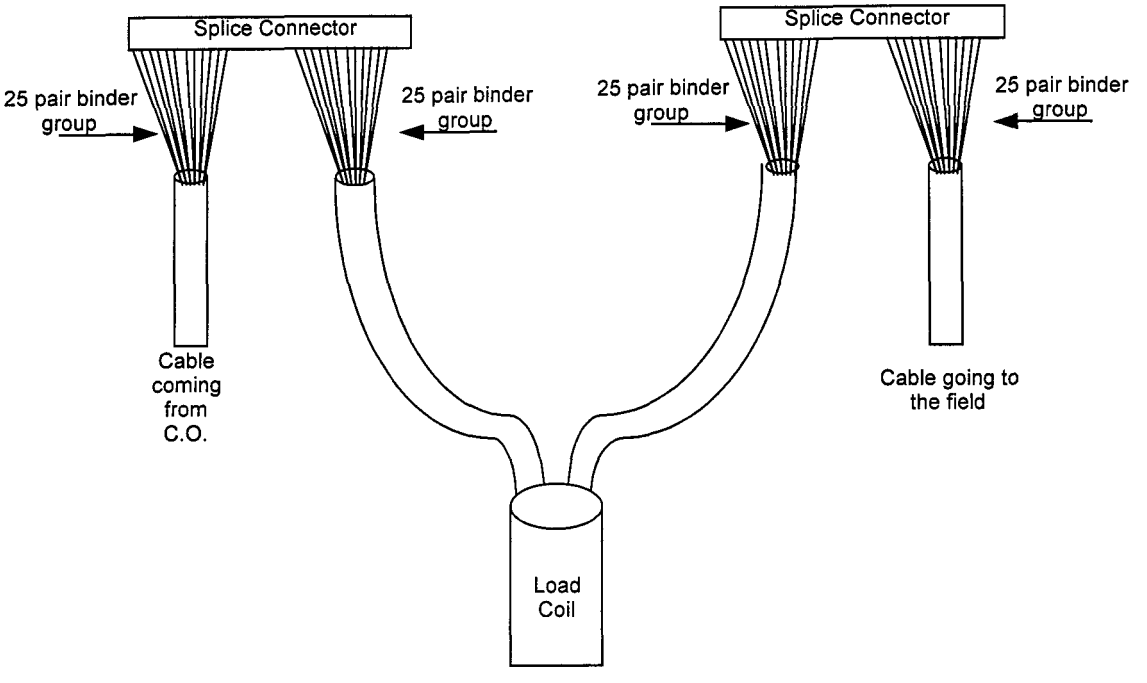
Splicing Example 1 - Straight Splice



1

2

Splicing Example 2 - Load Coil



3

To remove the "disturber" pair from the splice connector, you simply pull the pair from the splicing connector. You can pull one pair at a time or several pairs at once if you wish. You then need to reconnect the feeder side of the pair to the field side of the pair to complete connectivity through the splice. Once again, this can be performed one pair at a time or all twenty-five at once if so desired. After the splicing activities have been performed, the technician then closes and seals the splice closure by installing the closure sealing bolts.

5) Remove splicing and safety equipment and load on truck – This consists of removing the traffic safety equipment, test equipment and purging equipment and placing it back on the truck.

Q. Please Define Aerial Plant and Discuss the Process required to remove Load Coils, Bridge Taps and Repeaters from Aerial Plant.

A. Aerial plant is cable that is installed and attached to poles which support the cable in the air. The closures used to house splices vary in size and architecture. Some aerial splice closures are stainless steel and have the same architecture as those used in underground plant. These are typically used on very large cables where multiple splice connectors will need to be housed. There are also polyurethane splice closures which are much easier to access and make up the majority of closures used in aerial plant. Many of the steps to condition aerial plant are very similar to those used to condition underground plant.

1) Travel Time – This is the identical activity as described in the underground explanation located in this testimony.
2) Prepare work site with safety equipment – The conditioning of aerial cable will most likely involve the technician working out of a bucket truck. The technician will have to put cones around the truck to mark the work area and will need to place traffic safety signs in the proper locations. Cable routes typically follow roads and utility right-of-way corridors. Utility right-of-way corridors most often are located in areas where there is no public access or traffic flow. When conditioning is done in these locations, there is no need for the placement of traffic signs.
3) Approach aerial terminal and open terminal - At this point, the technician will enter the bucket and approach the aerial terminal. He will open the terminal and either remove a few bolts from a stainless steel type closure or slip some simple fastening clips from the poly style closure.
4) Locate and remove pair from "disturber" – As mentioned previously, the pairs will be color coded for easy identification. The technician simply locates the pair to be conditioned and removes the pair from the "disturber" (load coil, bridge tap, repeater). This is accomplished by the same method as describe previously. Additional pairs can be

conditioned simultaneously very quickly and easily as described previously in this testimony

5) Store pairs, close spice closure, and descend pole – This consists of arranging the splice connectors back in the splice case and closing the case. After the technician has closed the splice closure he will descend the pole

6) Store tools and remove safety cones and traffic equipment.

Q. Please Define Buried Plant and Discuss the Methods of Conditioning Pairs in Buried Plant.

A. Buried plant consists of cable that is directly buried in the ground. It is not housed in a protective conduit like underground plant. The types of splice closures used for buried plant are normally metal boxes that stick out of the ground. To enter the splice closure you simply loosen one or possibly two bolts and remove the lid. Some larger splice closures actually have doors that conveniently swing open. The conditioning times and activities for buried plant are very similar to aerial plant. The only basic difference is that the technician has slightly less time involved in approaching the splice closure since it is located on the ground. In most instances it also takes a little less time to open the splice closure due because there is only one or possibly two bolts to loosen to enter the closure.

Q. Based on your descriptions above, is it your testimony that conditioning becomes less expensive as the network moves from underground to aerial to buried facilities?

A. Yes it is.

Q. What effect then, does overstating the percentage of conditioning activity that occurs in underground facilities have on BellSouth's proposed costs?

A. BellSouth's assumption with regard to load coils that 90% of conditioning activities occur in underground facilities simply over-inflates its costs.

Q. Please describe in detail the method you used to recalculate the proper rates based on the correct activity times.

A. I actually used the Excel Workbooks included with BellSouth's TELRIC costs calculator to produce the inputs into BellSouth's TELRIC Cost Calculator Version 2.3. I then ran BellSouth's TELRIC Cost Calculator to produce new Economic Costs.

Q. Please Summarize your thoughts on BellSouth's conditioning practices from a viewpoint of costing and efficiency.

A. As indicated in my testimony, the conditioning practices described by BELLSOUTH are not based on actual field work experience. BellSouth's assumption that only 10 loops should be conditioned per activity where hundreds of additional loops are available for conditioning simply promotes inefficiency and raises costs to competitors. Moreover,

BellSouth's proposed cost model significantly overestimates the work times necessary for most of the conditioning tasks. I have conducted these tasks personally on many occasions and can testify unreservedly that not only has BellSouth significantly overstated the times involved to complete certain activities, but also has assigned times to activities that simply may not need to be performed.

VI. Recommended Rates

Q. What rates do you recommend the Commission approve for BELLSOUTH for loop conditioning in this proceeding?

A.

Cost Element	Description	Non-Recurring Cost	Reference
A.17.1	Unbundled Loop Modification Load Coil/Equip. Removal Short	$9.76	Exhibit EM_1
A.17.2	Unbundled Loop Mod. Load Coil Removal - Long	$31.92	Exhibit EM_2
A.17.3	Unbundled Loop Mod. Bridge Tap Removal	$7.811	Exhibit EM_3
A.17.4	Unbundled Loop Mod. Additive	$16.71	Exhibit EM_4

Q. Recently, the United States Court of Appeals for the Eighth Circuited vacated and remanded the FCC Rule 51.505(b)(1) regarding efficient network configuration. Does the decision of the Eighth Circuit affect your analysis and the rates you have proposed?

A. No it does not. While I am not a lawyer, my understanding is that the Eighth Circuit found that forward looking, incremental costs are still proper, but should be based upon the costs incurred by an ILEC in providing access to its existing network, not a hypothetical, technologically superior network. In vacating the FCC Rule 51.505(b)(1), however, it is highly unlikely that the Eighth Circuit intended to remove any efficiency requirement placed on ILECs. Rather, while arguably now ILECs may recover those costs associated with providing access to their existing networks, they still are required to provide competitive providers with access to those networks in an efficient manner.

Q. In the context of loop conditioning, what results could occur if BellSouth was no longer required to provide conditioned loops in an efficient manner.

A. Simply, BellSouth would have the ability to stifle competition in Florida. As I have described above, BellSouth already is overstating much of its time estimates, leading to over-inflated rates that I understand are cost prohibitive for those companies for whom I am testifying. Without an efficiency requirement, BellSouth could opt to fly its engineers to China prior to conditioning a loop, and pass through those charges to competitive providers. Clearly, this is not what the Eighth Circuit intended.

Q. Does this conclude your testimony?

A. Yes it does.

I. Witness Introduction and Purpose of Testimony

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

A. My name is Eric McPeak. My business address is as follows: QSI Consulting, 111 East Spring St, El Dorado Springs, MO 64744.

Q. Are you the same Eric McPeak who filed testimony previously in this docket?

A. Yes, I am.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to address revisions BellSouth has made to its cost model, which includes Excel input files that are used for inputs into the BellSouth TELRIC Calculator Version 2.4 filed in this docket.

Q. Did you use the BellSouth TELRIC Calculator to calculate the rates that are included in your initial Direct Testimony filed in this proceeding.

A. Yes I did.

Q. Did BellSouth's revisions have an impact on the rates you initially recommended in this proceeding?

A. Yes, Due to the fact that BellSouth has made revisions to the Gross Receipts Tax Factor included in the BellSouth TELRIC Calculator, this ultimately has an effect on all of the rates calculated in this proceeding.

Q. Are there other changes that BellSouth has made to their cost models that change the rates that you have proposed in this proceeding?

A. No. BellSouth has made additional changes in the cost models that I do not use in my analysis to calculate rates.

Q. BellSouth has added additional rate elements for Loop Modification for Sub Loop applications (Elements A.17.5 and A.17.6). Will you be addressing these newly filed rate elements?

A. No I will not. My original method of calculating Loop Modification Costs can also be applied to Loop Modifications that would take place in Sub Loop applications.

II. Loop Modification Recommended Rates

Q. Please provide a table including the Revised Recommend Rates that you propose for Loop Modification in this proceeding.

A.

Cost Element	Description	Non-Recurring Cost	Reference
A.17.1	Unbundled Loop Modification Load Coil/Equip. Removal Short	$ 9.68	Exhibit EM_1
A.17.2	Unbundled Loop Mod. Load Coil Removal - Long	$ 31.67	Exhibit EM_2
A.17.3	Unbundled Loop Mod. Bridge Tap Removal	$ 7.75	Exhibit EM_3
A.17.4	Unbundled Loop Mod. Additive	$ 16.57	Exhibit EM_4

Q. Does this conclude your testimony?

A. Yes, it does.

CHAIRMAN DEASON: Now, do we have cross-examination in the form of a deposition for this witness?

MR. EDENFIELD: We do. And at this time BellSouth would move into the record the cross-examination via deposition of Mr. McPeak. And there were no exhibits.

CHAIRMAN DEASON: Mr. Fons is handing that to us at this moment.

MR. SLOAN: And we have waived reading and signing of that deposition.

CHAIRMAN DEASON: Very well. Then the deposition of Witness McPeak that was taken on October 18th shall be inserted into the record as though read. And there is no accompanying exhibit?

MR. EDENFIELD: That's correct. And that will conclude BellSouth's cross-examination of Mr. McPeak.

CHAIRMAN DEASON: Very good.

BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

IN RE: INVESTIGATION INTO PRICING OF
UNBUNDLED NETWORK ELEMENTS

DOCUMENT NO. 990649-TP

CROSS-EXAMINATION OF

ERIC McPEAK

October 18, 2000
9:10 a.m.

675 West Peachtree Street,
Atlanta, Georgia

Sharon A. Gabrielli, CCR-B-2002

APPEARANCES OF COUNSEL

On behalf of Broadslate Networks, Inc., Cleartel Communications, Inc., and Florida Digital Network:

MICHAEL C. SLOAN, ESQ.
Swidler, Berlin, Shereff & Friedman, LLP
3000 K Street, N.W. - Suite 300
Washington, D.C. 20007-5116
(202) 295-8458
E-mail mcsloan@swidlaw.com

On behalf of the BellSouth Telecommunications, Inc.:

E. EARL EDENFIELD, JR., ESQ.
BellSouth Telecommunications, Inc.
675 West Peachtree Street, Suite 4300
Atlanta, Georgia 30375-0001
(404)-335-0763
E-mail kip.edenfield@bellsouth.com

2971

On behalf of Sprint Communications:

JOHN P. FONS, ESQ.

Ausley and McMullen

Washington Square Building

227 South Calhoun Street

Tallahassee, Florida 23301

(850)224-9115

On behalf of Rhythms Links, Inc.: (Via telephone):

JEREMY MARCUS, ESQ.

Blumfeld and Cohen

1625 Massachusetts Avenue, N.W. - Suite 300

Washington, D.C., 20036

On behalf of the Florida Public Service Commission: (Via telephone):

DIANA CALDWELL

WAYNE KNIGHT

.

.

.

.

.

.

.

.

October 18, 2000

MR. EDENFIELD: Before we start the deposition, why don't we take some appearances so the court reporter can get everybody's name. So anybody that is on the phone that wants to be recognized?

MS. CALDWELL: This is Diana Caldwell, D-I-A-N-A, C-A-L-D-W-E-L-L.

MR. KNIGHT: Wayne Knight.

MS. CALDWELL: And we are with the Florida Public Service Commission. Do you need our address?

MR. EDENFIELD: No, that's all right.

MR. FONS: This is John Fons. It's John P. Fons, F-O-N-S, with the Ausley, A U S L E Y, and McMullen law firm. That's M-c-M-U-L-L-E-N. Post Office Box 391, Tallahassee, Florida, 32302 appearing on behalf of Sprint.

MR. MARCUS: This is Jeremy Marcus, M-A-R-C-U-S, with Blumfeld and Cohen, B-L-U-M-F-E-L-D. The address is Suite 300, 1625 Massachusetts Avenue, Northwest, Washington, D.C.,

20036. And I'm appearing on behalf of Rhythms Links, Inc. And if you're going to be sending out electronic versions of transcripts, my E-mail address is jeremy@technologylaw.com.

MR. EDENFIELD: Anyone else on the phone? Speak now or forever hold your piece, as they say.

Before we get started, just let me note for the record that this is -- although it's being taken in deposition format, this is not technically a deposition. This is the cross-examination of Messrs. McPeak and Stacy, and we are doing that is an accommodation so as to avoid having everybody to go back to Tallahassee on Friday. So I would just ask everybody to be mindful and conduct themselves as if this is cross-examination and not a deposition.

One more thing. I believe that Broadslate and the Coalition Group has agreed to take responsibility for getting this put into the record, just as the other folks did with Mr. Riolo. I do not anticipate that there are going to be any cross-examination exhibits, at least at this time, so that should make things

a little more simple for getting the cross-examination put into the record.

And with that, we can swear in Mr. McPeak.

ERIC McPEAK, having been first duly sworn, was deposed and testified as follows:

CROSS-EXAMINATION

BY-MR.EDENFIELD

Q. Mr. McPeak, you had filed some direct testimony in this proceeding?

A. Yes, I have.

Q. Or at least you will be, come Friday. I'm going to ask you a few questions about that. Let's talk about your background for a moment. As I understand it, in 1989 you were employed by a company called Contel of Missouri?

A. Yes, that's right.

Q. What is Contel?

A. Contel was an incumbent local exchange carrier that provided telephone service throughout several states in the United States.

Q. They later became part of GTE?

A. Yes, they were acquired by GTE, I believe, in late '90 -- I mean, late 90, 1990.

Q. What area, as far as geography, did you work in Missouri?

A. Southwest district.

Q. What exactly -- is there a major city associated with that? Would that be considered more rural?

A. It is fairly rural. We did have a city that was fairly large, which is Branson.

Q. What's the population of Branson?

A. I am not for sure.

Q. Is it less than a million?

A. Yes.

Q. Less than a hundred thousand?

A. Yes, it is.

Q. And as I understand it, you were an outside plant service tech for Contel from 1990 through 1997?

A. For GTE through '97, yes.

Q. Since 1997, have you worked for an incumbent or an ALEC or an ILEC as far as doing outside service technician services for them?

A. As an employee?

Q. Yes.

A. No, I have not.

Q. Since 1997, you've been basically employed as a consultant?

A. That's true.

Q. Would it be fair to say the last time you actually performed a load coil removal on what I consider to be live or active plant would have be 1997 or before?

A. Yes, that's true.

Q. Do you remember when the last time you actually performed a load coil removal?

A. The actual date --

Q. The date. Well, year, not necessarily the date.

A. I would have performed that in 1997.

Q. Now, you're currently employed at QSI Consulting?

A. Yes, that's true.

Q. And that's the same company that Mr. Stacy is employed?

A. Yes, sir.

Q. Did you know Mr. Stacy before this proceeding?

A. I've known Mr. Stacy since he went to work for QSI, which has been for over a year, I'm sure.

Q. And y'all are in different offices, though. You're in Missouri, and he is in Wyoming, I believe?

A. That's true.

Q. Now, as I understand your testimony in discussing your educational background, you've completed some courses towards an electrical engineering degree?

A. Yes, sir.

Q. Have you completed that degree as we sit here today?

A. No. I went through two years of the electrical engineering school.

Q. What is the highest degree that you have at the moment?

A. The highest degree that I have would be high school.

Q. As I understand the purpose of your testimony, you are here to discuss the proper times and methods associated with loop conditioning for XDSL services, and you're here to address BellSouth's proposed rates?

A. Yes, sir.

Q. Is there any other item that you're going to be discussing from a general topic in

your testimony?

A. No, there's not.

Q. Okay. In rendering your opinions in your testimony, have you conducted any time and motion studies on BellSouth employees or BellSouth practices and procedures?

A. No, I have not.

Q. Have you ever held a position with BellSouth?

A. No, sir.

Q. Have you ever worked on BellSouth's network?

A. No, I have not.

Q. Would it be fair to say that your opinions as to loop conditioning come from your experience with Contel/GTE in Missouri?

A Yes, that would be true, with the exception that I will add that loop conditioning is the same practices wherever you're at. I mean, unloading a loop is the same in North Carolina or Florida or Atlanta, Georgia, as it would be in Missouri.

Q. So it's your opinion that the network throughout the country is the same as far as what's required to unload a load coil?

A. Yes, I think it's very similar. I think that the networks are all built under Bellcor ANSI guidelines and also AT&T guidelines. So I feel that it would be very similar activities.

Q. Will you agree with me that the makeup of the network may vary depending on whether you're in a rural area as opposed to a metropolitan area?

A. Could you define makeup a little bit more clearly?

Q. Yes. The percentages of what you're going to have that may be underground as opposed to aerial percentages, what may be pulp cable or PIC cable, that those may vary depending upon on whether you're in a metropolitan area or rural?

A. I think that the application of underground aerial and buried plant can vary depending upon geographic location. I don't think that it varies from state to state as far as how plant is allocated within each state.

Q. And although you're rendering some opinions on BellSouth's rates that we've proposed, I assume you're not holding yourself

out to be a costing expert?

A. I am not.

Q. Thank goodness. Will you agree with me that there are a variety of digital subscriber line technologies?

A. Yes, there is a variety.

Q. And just briefly, tell me what those are.

A. Well, the XDSL category contains several different varieties of DSL-type transmission facilities. You could be looking at IDSL, you could be looking at VHDSL, ADSL. Those are various types of XDSL.

Q. Are there any technical specification differences among the different types of XDSL services -- or technologies, I should say?

A. Technical guidelines for each one of those types of services can vary because those services are distant-sensitive services.

Q. Is there anything unique about ADSL services that differentiate them from the other DSL technologies?

A. DSL has the capability of voice and data in the same cable pair. The downstream band width is a high band width. The upstream

is lower band width. Whereas some of the other XDSL could very easily accommodate high band width up and downstream. So, yes, there is some technical differences.

Q. Will you agree with me that the characteristics of a copper facility such as a copper loop can impact the efficiency of the various XDSL technologies?

A. I think that the characteristics of the loop as far as resistance, length, variances like that, attenuation, can affect how XDSL services work.

Q. And can the characteristics of even an unbundled loop affect the quality of an XDSL transmission?

A. Yes. If the pair has any type of added resistance on it, so on and so forth, yes, it could affect the operation of the service.

Q. And some of those impediments to service can be bridged tap or load coils?

A. That is true.

Q. And I assume that you do not take issue with the fact that there are some instances where BellSouth will have to actually

remove a load coil or bridged tap in order to make an XDSL technology function properly?

A. If there is a copper loop that is going to be used for XDSL, if there is an excessive bridged tap or load coils on the loop, they will need to be removed, yes.

Q. There's been a lot of discussion about bridged tap in this proceeding. Will you agree with me that bridged tap is -- I'm trying to get the phraseology here correct -- that bridged tap is something that actually can add to the efficiency of a network?

A. I don't know if I would agree that it adds to the efficiency of the network. Bridged tap is designed to enhance the network to accommodate growth where feeder facilities don't exist for every distribution pair.

Telephone companies typically install bridged tap to try to minimize the investment that they would have to put in their copper facility on a forward-looking basis. Bridged tap is not an efficient type of architecture for outside plant.

Q. How about flexibility? Would you agree with me that bridged tap allows the

network to become more flexible as far as serving different areas from a geography standpoint?

A. I think it does add flexibility if you have limited copper facilities, due to the fact that you can take one feeder paper and use it at multiple locations when needed. But it also does have detrimental effects to the network as if a wire that was bridged tap actually had a service interruption on past the customer in the bridged tap, it could very easily knock the customer out of service.

Q. And I guess the same would be true, you will agree that there are some instances -- and I guess basically for loops over, I think you say, 17.5, I think we commonly refer to as 18 kilofeet -- that load coils are actually necessary for voice grade transmission for those loops at that length?

A. If it's an all-copper facility, yes.

Q. Will you agree with me that BellSouth should be compensated -- we can, you know, disagree over how much, but will you agree with me that BellSouth, as a premise, should be compensated for load coil removal and

bridged tap removal if that's being requested by an ALEC to provision XDSL service?

A. First of all, no, I wouldn't say that I totally agree that they should be compensated for, number one, loops that have inhibitors on them, especially less than 18,000 feet, the inhibitors are not necessary to make voice grade services work. In other words, you don't need a load coil on a loop less than 18,000 feet to allow that voice service to work. So to charge the ALEC to remove that I don't think is proper.

Q. Well, let me ask you this. Let's drop back in time.

A. Okay.

Q. Will you agree with me that before digital loop carrier technology, that it was common practice to load up all the loops, all copper loop facilities in BellSouth's network for voice grade transmission, that that's what was going on?

A. I would not agree that all loops were loaded, no.

Q. That it was common practice, not all of them. Obviously, there is some that were

not.

A. I think it is a common practice to load facilities that were going to be used to accommodate customers for voice service over 18,000 feet.

Q. Do you know whether BellSouth was loading copper facilities under 18 kilofeet? And I'm talking back in the '50s, '60s, '70s.

A. I think that they have stated in this proceeding that they have. Other than that, no, I don't know that they did. They have said in this proceeding that they have loaded plant less than 18,000 feet. Whether or not that was necessary, I don't believe it's necessary, to provide service less than 18,000 feet, you don't need load coils.

Q. So back in the '50s, '60s, '70s, when a lot of this was going on, it is your opinion that BellSouth should not have been loading copper facilities under 18 kilofeet?

A. Yeah, that's my opinion.

Q. Okay. What is the basis for that opinion?

A. As I stated earlier, for voice services less than 18,000 feet, it's not

necessary to have load coils to make those services operate.

Q. Will you agree with me that even on loops under 18 kilofeet, that load coils will improve voice grade transmission?

A. It depends upon where the customer is located within the loading scheme. There are many times where load coils and loops less than 18,000 feet have to be built out with a build-out capacitor to allow for the voice service to operate in that corridor. So I think that load coils for voice service for loops less than 18,000 feet are more of an inhibitor. They inhibit voice service more than they enhance.

Q. And you say that would be true back in the '50s, '60s, '70s?

A. Yes, the copper characteristics and electrical characteristics of a copper facility are not any different in the 1950s than they are in the 1990s or year 2000.

Q. Have you proposed a rate for removal of load coils on loops under 18 kilofeet?

A. Yes, I have.

Q. Can I make an assumption from your

having proposed a rate for that that you think it's appropriate for BellSouth to charge for a load coil removal for copper loops under 18 kilofeet?

A. No. I don't think that you can make that assumption that I think that it's appropriate. I proposed a rate for load coil removal for loops less than 18 kilofeet for the situation that if the Commission decides that it's proper, which I strongly recommend to the Commission that it's not proper to charge for loop modification less than 18 kilofeet, that if they did decide to, they would have an appropriate rate that they could look at.

Q. In developing your cost or the rate you're proposing for the removal of load coils for copper facilities under 18 kilofeet, how many load coil removals did you assume were going to take place?

A. I assumed the exact amount of load coils that BellSouth assumed in their study. I didn't change it. I believe it was 3.5; is that correct?

Q I think it was 2.1 for under. But then for over, it was 3.5?

A. Under 18 kilofeet, 2.1. 3.5 for over correct.

Q. Would you agree with me that under engineering guidelines, the first two load coils that you will find on a loop will be under or over 18 kilofeet; the first one will be at 3,000 feet, and the second one will be at 9,000 feet?

A. I agree, yes.

Q. And that is from the central office?

A. Yes.

Q. Will you agree with me that 90 percent -- let me back up for a second. In conditioning a copper facility -- in other words, you're doing the load coil removal -- that 90 percent of the time that is going to happen in an underground environment and 10 percent of the time that's that's going to happen in either an aerial or buried environment?

A. I disagree with that.

Q. So you disagree with Mr. Riolo on that point as well, BellSouth and Mr. Riolo?

A. I don't think Mr. Riolo promotes 90 percent underground and 10 percent --

Q. Well, let's take a look at page -- give me one second. I don't know if you brought Mr. Riolo's testimony with you, but take a look at page 91 of his testimony beginning on line 20. I've got a sentence underlined there. I'm sorry. I didn't bring an extra copy. Take a look at that.

A. Yes.

MR. SLOAN: Why don't you begin with the question and read the entire answer, okay?

Q. (By Mr. Edenfield) I want you to read everything in context. I don't want to take anything out of context, but that's the sentence I'm going to ask you about.

A. The question as stated in the testimony is: "If the Commission were to award ILECs the right to charge for load coil removal, what tasks and task time assumptions would be appropriate?"

Q. So, in other words, what you're about to read there are Mr. Riolo's assumptions for task times that he has proposed in this proceeding?

A. Yes.

Q. Okay. Now, look down at the

sentence beginning on line 21. I'm just going to -- I don't mean to stand over you. I'm sorry. I apologize.

A. That's fine.

Q. Will you agree with me that Mr. Riolo has testified that because feeder cable is normally placed in conduit when close to the central office, I assume that the first two load coil locations involve underground cable -- and you can flip over and read the rest of that -- at manhole locations.

A. Yes, I agree with that, but if you would allow me to, I will go ahead and read the entire paragraph starting at line 18. And this is the answer: "Load coils were deployed starting when a copper loop reaches 18,000 feet in length, at 6,000-foot intervals, starting with three locations, at 3,000 feet, 9,000 feet, and 15,000 feet. Also, because feeder cable is normally placed in conduit when close to the central office, I assume that the first two load coil locations involve underground cable at the manhole locations. The third location is most likely in aerial or buried locations. Therefore, I have assumed that 50 percent of

the time for deloading the third load coil location will be at the aerial location, and 50 percent of the time deloading of the third load coil location will be at a buried location. Instead of the wide array of divergent proposals by the ILECs, the Commission can use the following work steps and conservative time estimates to estimate the cost involved in removing load coils from these three locations."

So based on that, I don't think it's 90 percent/10 percent.

Q. In fact, he has assumed for the purpose of his study that the first two load coil removals are going to be 100 percent of the time in a manhole or what we call underground situation?

A. The first two load coils would be an underground. That's what he assumes, yes.

Q. And you just said for purposes of your rates that you've proposed, you've assumed 2.1 load coils on loops under 18 kilofeet?

A. Yes.

Q. Do you disagree with the premise that the first two are normally going to be found in an underground environment?

A. I would disagree with that, yes.

Q. And I'm sorry, I don't remember from what you had -- from reading your testimony, did you have an opinion stated as to the percentage of times that you would find the first two load coils in an underground situation?

A. Yes, I have an opinion on that based on the fact that loop conditioning doesn't only take place in metropolitan areas for XDSL services. When we are looking at loop conditioning, we have to take into consideration that this will be taking place not only in metropolitan, but it will be taking place in rural areas and suburban areas where actually XDSL was designed to accommodate customers.

If we take a look at those areas, my assumption assumes that underground will take place 33 percent of the time, along with 33 percent aerial, 33 percent burial.

Q. So you've just given an equal third to each of the possibilities?

A. Right. In other words, if there is three load coils on the loop, the first one will be underground plant, the possibility are

for the second one and third of being aerial and burial.

Q. Let's make sure I understand this. Are you saying that there is an equal chance that the first load coil you come to will be underground aerial or burial?

A. I'm saying that the first load coil will be underground.

Q. So the first one 100 percent of the time is going to be underground?

A. Yes.

Q. It's when you move to the second one, then it becomes an equal chance as to whether you're going to find it above, below, or way below?

A. It would be an equal chance that it would be aerial or buried.

Q. Now, aerial or buried or underground or just aerial or buried?

A. No. The way that I allocated the times within the BellSouth model itself where they allocate 90 percent, 10 percent, I allocate 33 percent for underground, 33 percent for buried, 33 percent for aerial.

Q. Okay. You confused me with the

second one. Have you made assumptions as to where you're going to find each individual load coil, or are you just saying overall?

A. I'm saying overall.

Q. So you've not made any assumptions other than that the first one will always be underground as to two or more. You're not making assumptions as to the individual -- where you're going to find them?

A. No, not individually. I'm doing it on allocated percentage basis.

Q. I got you. I got you. The other issue that you've raised here is are the loop conditioning labor types proposed by BellSouth. Will you agree with me that the times that have been proposed basically by all the parties are nothing more than estimates?

A. As far as I know, there have been no time and motion studies performed. I haven't performed any time and motion studies. I would say that they are more -- a little bit more than an estimated time. It would be more the fact that I have performed the activities and I know how long it takes. It's not an estimate. It's a real-time assumption that I

have made based on my experience so --

Q. Sure. And you made that based on your experience in unloading load coils in a -- what I'm going refer to as rural Missouri, just --

A. I wouldn't. You can refer to it as rural, if you like. I probably wouldn't necessarily agree with that. I think instead of geographic location, you have to look at the number of access lines that are served in the location. And we had a substantial amount of access lines.

Q. What were the number of access lines in the area that you particularly worked in?

A. My estimate would be around 100,000.

Q. And are you aware that in BellSouth's territory, there are cities such as Miami, Ft. Lauderdale, West Palm Beach, Jacksonville, Orlando, will you agree that in those cities alone there are -- in each of those cities there are more than 100,000 access lines?

A. Yeah. I guess I should clarify my statement. That would be 100,000 per wire center.

Q. And will you agree with me that 100,000 access lines per wire center is substantially less than what you're going to find in Miami?

A. I will agree to that, subject to check, yeah.

Q. Same would be true for Ft. Lauderdale, Jacksonville, Orlando?

A. Yes.

Q. Now, Mr. Riolo's work times were also based on his experience in -- I think he was in the Bell Atlantic system for some time.

A. (Nods head affirmatively.)

Q. You agree with me that your work times vary from Mr. Riolo's work times?

A. I think that they do vary some, yes.

Q. Sure. And then the times proposed by Mr. Greer differentiated from yours and Mr. Riolo's?

A. I think what we need to look at, if we are going to refer to that scenario, is that Mr. Riolo's times and my times are very, very close in proximity compared to Mr. Greer's, which are very much excessive compared to Mr. Riolo's and mine.

Q. How much differentiation would you agree is reasonable off of your time as a percentage?

A. I'm not sure I can't speculate on that.

Q. How about if a time was, say, double what you had estimated, would that be unreasonable?

A. For the entire activity or for each individual activity?

Q. Why don't we go on each individual activity.

A. I think you have to look at how the times are allocated for each one of the steps in the process. We have to assume that what we would be looking at would be, for instance, the total time it takes to do underground loop modification or underground removal of load coils. I think if you looked at that, the times are very comparable between Mr. Riolo and myself. Now, how those times are divided up, I think, can vary based on how you allocate the time down through a flowchart, so on and so forth.

Q. Let me ask you this: You've got,

from what I can tell, what I call four categories of times; travel being one, a manhole work site preparation being another, to open and close the splice being another, and conditioning pairs being what I call the final step.

A. Yes. And what I actually had done was since I used BellSouth's model to calculate the rates, I looked at the cost model to see how BellSouth allocated the time in the cost model, and then I placed the appropriate time within the categories in the model.

Q. Now, you've allocated 15 minutes for travel. What assumptions have you made about travel times?

A. I've allocated 15 minutes to travel based on the fact that when we are conditioning loops, the first load coil or conditioning location is going to be approximately 3,000 foot from the central office. And I've also taken into consideration that technicians are typically assigned to a geographic location that they work within all the time. And for a technician to travel, based on my experience, the way we've done it, is you could travel to any point in your service area within approximately 15

minutes.

Now, sometimes it would take you more; sometimes it would take you less. It could take you 45 minutes. It could take you five minutes. So I have arrived at 15 minutes as a reasonable average time for travel.

Q. Now, is this on a per-load coil basis, or is this for removing the 2.1 that you've assumed?

A. This is total travel time for the activity of removing the load coils.

Q. So you're giving 15 minutes to travel from -- are you assuming they are leaving from the central office?

A. No, I don't assume that they necessarily have to leave from the central office.

Q. Did you make an assumption at all as to where they are going to be leaving from?

A. I think they could be leaving from a number of locations. They could be leaving from another job. They could be leaving from the reporting location. They could be leaving from the central office. My time is based on that they are going to be working in one

geographic location. And they are going to be assigned to that location, and their travel within that location would be 15 minutes.

Q. Have you ever driven in Miami in a rainstorm?

A. No, I have not.

Q. So you're allowing the service tech to get from whatever the starting point may be to the first -- well, I guess since you're assuming 100 percent of the time for the first load coil being underground, we are going from the work area to the manhole, then you're going to do a job there. You're then going from that manhole to the second load coil, wherever that may be, a third, you know, in each possibility. And then in 10 percent of the time, going to a third location and then back to the central office?

A. No, I don't include back to the central office.

Q. So you're just going from the beginning point to the first load coil, to the second load coil, and then in 10 percent of the time to the third load coil?

A. I don't know about the 10 percent of

the time to the third load coil.

Q. Well, didn't you make an assumption that there are 2.1 load coils in your assumption? Didn't you tell me you took BellSouth's assumption?

A. Yes, that's true.

Q. So in 10 percent of the time, then, there is going to be a third load coil?

A. Yes, I will accept that, yes.

Q. So again, from the starting point to the first load coil to the second load coil and in 10 percent of the time to a third load coil, you're giving them 15 minutes to drive, is that --

A. Yes, that's right.

Q. Did you see the videotape?

A. Yes, I did.

Q. Will you agree with me that that is closer to a real world demonstration than a -- Mr. Riolo's example in the -- what I call the confines of the hearing room, as far as what can be encountered, some of the problems?

A. I think that was a very extreme situation.

Q. I will give you that, that that was

an extreme situation, but will you agree with me that what you're liable to run into is better reflected on that videotape than in the sterile confines of a hearing room?

A. I think what we have to look at when you refer to the videotape comparing it to Mr. Riolo's example or demonstration that he performed is that Mr. Riolo performed a loop conditioning activity that you would encounter in a manhole or in the aerial plant, either one. So I think that the actual conditioning of the pairs where he removes the load coil is very valid. Now, when we look at the video and we look at the pumping of the manhole, getting down in there and actually performing the work, that -- the pumping of the manhole, personally, I had never seen a manhole that full of water, you know, typically.

Q. Well, welcome to the tropical climate.

A. Typically when you go into a manhole, my experience is there will be very little water in the bottom. In the video it was very full. And we've seen why. There was a defect in the manhole itself. I think the

percentage of occurrence with that would be very, very minimal that you would ever find that. I think if we compare the work activities with the exception of the extended amount of time that it took to pump the manhole and the extended amount of time that it took to repair the leak in the wall and so on and so forth, that the activity times are -- very much compare to what Mr. Riolo and myself have presented in this case.

Q. Let me ask you this, now: Mr. Riolo was a management employee for the most part. When you got done doing a load coil removal, did you look more like Mr. Riolo did after his demonstration or more like those guys coming out of a manhole?

A. Of course, it would vary. You know, when you get in a manhole, it is a dirty environment. But also, we have to assume that, you know, we are performing these activities in aerial environments where it's very clean, which would not be any different than Mr. Riolo's demonstration; very easily accessed. Just as far as a demonstration goes, I think it's very valid.

Q. Okay. Let's change gears for a second. Talk about feeder cable and distribution cable.

A. Yes.

Q. Have you made any assumptions as to the general length of a feeder cable?

A. General length, no.

Q. Would you agree that the feeder cable is generally out to closer to the 18 kilofeet than the -- in other words, what I'm trying to figure out is can you make a comparison between those -- this distinction between loops over and under 18 kilofeet? Can you somehow relate that to whether you're talking distribution or feeder? Is there some kind of analysis there or comparison to be made there?

A. On length, I don't think so, as the way you described it. Feeder typically can feed loops very long in length, and the distribution portion can branch off at any location within that feeder, feeder route length. So I don't think that we can necessarily limit the length of feeder to any certain footage.

Q. In the Contel/GTE network, did they

have feeder distribution interfaces, some kind of a box that would mark where the feeder ended and where the distribution began?

A. They would have what we refer to as FDIs, feeder distribution interfaces, where the box would be accommodating the feeder cable with multiple distribution cables coming out of it and act as a cross-connect point there, yes.

Q. Was there a general, I don't know, understanding, general acceptance of how far the feeder distribution interface was from the central office?

A. Not to my knowledge, no. They varied in length.

Q. So it could be anywhere from a thousand feet to 20-something thousand feet or more?

A. It's very possible. Typically, the FDIs were not extended an exceptional distance from the central office. You would find them more in areas that would be more consolidated, customers which were typically a little closer to the central office.

Q. Do you feel comfortable making an estimate as to how far out you would generally

find a feeder distribution interface in the central office?

A. Right now?

Q. Yes, now or --

A. No, I wouldn't feel comfortable until I had done some analysis.

Q. Okay. Are you familiar with the manner in which XDSL is being deployed, as far as whether it's generally deployed in metropolitan areas as opposed to rural areas at the moment?

A. I am somewhat familiar with it, yes.

Q. Would you agree with me that at least currently, that XDSL services are being rolled out predominantly in metropolitan areas as opposed to rural areas?

A. I think they are being rolled out in large cities. Necessarily where they are located within the city, it could be urban, metropolitan, or rural. But I think they are targeted for large cities, yes. I might add that not that they couldn't be used in other, but that's the target right now, yes, based on business plans.

Q. I mean, certainly there is nothing

that prevents XDSL from being rolled out universally --

A. Exactly.

Q. -- from a technology standpoint, but it looks like the target areas at least initially appear to be the larger cities?

A. (Nods head affirmatively.)

Q. Let me back up. You made an analysis here based on a 600 pair cable --

A. Yes.

Q. -- in your testimony. And the end result of that is that there are 224 copper pairs available for conditioning at a -- I'm guessing at a particular location or at least on -- or out of every 600 pair cable on average, you're saying that there are 224 loops available for conditioning. Am I reading this wrong?

A. Actually, what I'm saying is I have assumed a typical size of cable for feeder, which is 600 pair. I have assumed a typical size of cable for distribution, and taking both sizes in consideration to allow for loops less than 18,000 feet, loops over 18,000 feet. I have applied fill factors to those accommodating

penetration rates for new services, accommodating any type of growth, and have arrived at a -- what I feel is a reasonable amount of spare facilities that exist within the network that could be conditioned.

Q. Okay. Are you suggesting that on a single visit to a manhole, that 224 pairs should be unloaded if, in fact, they are all loaded?

A. I'm suggesting by that number that it's a possibility that there could be 224 that could be available to be unloaded.

Q. Are you advocating that?

A. I'm not advocating, in this proceeding, that you unload all 224. We are actually only advocating unloading 25. But if you took a proactive approach to, you know, positioning your network for future services, yeah, I think it would be reasonable to deload all of them, if you could.

Q. And who should pay for that?

A. I think that the way the cost model works is that it's allocated between the incumbent, it's allocated between the ILECs and another percentage of allocation for future.

Q. So you're willing to pay your share of the time it's going to take to unload 224 if, in fact -- I mean, maybe I'm reading more into this than I'm seeing here. I mean, are you willing to pay for that?

A. No. We are willing to pay for what we've proposed for rates in the proceeding.

Q. Which is 25, or did y'all do more than --

A. It's based on 25 pair per location. I will add that I think it should be zero, but we have proposed the rates, but I feel it should be zero.

Q. Now, I assume you're not holding yourself out to be an economist, mathematician, or statistician?

A. That's true.

Q. Can you tell me as you sit here today the -- on a 600 pair cable, how many are used for voice transmission as opposed to data transmission from a percentages standpoint?

A. I think, of course, the voice transmission is going to be higher than the data transmission percentage.

Q. Can you quantify that as to in a

600 pair cable the percentage you think is going to be voice as opposed to data?

A. I can't quantify that at this point, no.

Q. Is there a relationship between the number of lines and the amount of traffic?

A. Could you clarify that for me?

Q. You could have a line for voice transmission that I use once a day and I could have the same line that's used for data transmission. And if I have my computer up all day long, it may send a lot more traffic than my voice line does, but it is still one line each, that that's -- does that sound unreasonable to you? That the number of lines is not necessarily -- there is not necessarily a relationship between the amount of data and the number of lines?

A. I would say that's true. I'm trying to figure out what the relevance of that is, though.

Q. Just let me worry about that, and you just stick with answering it.

You've referenced this DataQuest report. That voice traffic is growing at an

annual rate of 6.9 percent, while data traffic is growing at 36.5 percent. Does that necessarily equate to line growth? Or is that just traffic?

A. Give me just a second and let me read this paragraph from my testimony.

This refers to data traffic in my testimony.

Q. Okay. So I take it you would now agree that the question is relevant since it's in your testimony?

A. Yes. I don't know --

Q. Have you read the -- I'm sorry.

A. Go ahead. I'm sorry.

Q. Have you read the DataQuest report?

A. I have seen it, yes.

Q. Have you read it?

A. Yes.

Q. Start to finish?

A. I don't know about start to finish, but I have read portions of it.

Q. Do you know whether that study was for a particular region, or was this just making general assumptions on a national basis?

A. This was on a national basis.

Q. You will agree with me that with the advent of the new technologies, that it's possible to run data and voice over the same line, same copper facility?

A. Yes.

Q. Will you agree with me that if you're going to utilize that setup -- in other words, you're going to be running voice and data over the same copper facility -- that you may not necessarily experience increased demand for data lines?

A. I don't know if I would agree with that.

Q. If you're going to run it over the same line, you don't need an additional line, almost by definition, right?

A. You don't need an additional pair, no.

Q. If an ALEC orders one XDSL loop, you want BellSouth to go, as I understand it, to go out and if, in fact, it's loaded, to go ahead and remove the load coils for 25 of those loops?

A. Yes.

Q. Are you willing to pay for the

unloading of the other 24 pairs?

A. In its entirety, no.

Q. Are you willing to pay for a portion of unloading the other 24 pairs?

A. We are willing to pay the rate that proposed in this proceeding, which is based on 25 pair, as it's allocated within the BellSouth cost model.

Q. So you've actually proposed some -- you know, in BellSouth we refer to it as an additive charge, I guess. And y'all have proposed something similar to that?

A. Actually, there is an additive that's included in the exhibits in my testimony. I do not promote the additive to recover the additional 24 pair, even though it was an output of the TELRIC calculator, which I could not tell the calculator not to give it as an output. So it did calculate a rate for it, but I don't promote it.

Q. But you have proposed a rate in your testimony?

A. Yes.

Q. Will you agree with me as a general premise that you do not want to handle cable

pairs very often; that the more you handle it, the more likely something is going to break?

A. I would agree to that.

Q. Do you know the difference in pulp cable and PIC cable?

A. Yes, I do.

Q. Tell me the difference in the two.

A. PIC cable is polyethylene insulated cable, which is kind of a plastic-style insulation that covers a copper conductor. Pulp cable is a papery-type substance that covers the conductor.

Q. Back in the '60s, '70s, maybe even the '50s, would you agree that pulp cable was put in more predominantly than PIC cable?

A. I'm not sure what they were putting in the '50s and '60s. I know what you see within the network. I don't know exactly what they were installing then.

Q. What are you seeing in the network from at -- at least that which was installed before 1980, what were you seeing more going in?

A. Depends on where it was located within the network.

Q. How about within the first 9 kilofeet from the central office?

A. I think that you will occasionally see PIC cable within the first 3,000 feet, possibly. When they actually quit installing pulp cable, I'm not for sure.

Q. So within the first -- did you say first 3,000?

A. I think that you could see some pulp cable at the first load coil spot, but I think it's rare.

Q. Pulp is rare?

A. Pulp is more rare than PIC, yes.

Q. Let's talk about service inquiry for a moment.

A. Sure.

Q. What is your understanding of what's taking place when BellSouth puts in service inquiry charges?

A. This would be the process that takes place of processing the order from the ALEC.

Q. What is your understanding of what that involves?

A. Well, I have a description that was given in the cost model that I can refer to.

Q. Let me do this: Feel free to refer to it, but what I'm really getting at is do you have an understanding of it independent from what you've read?

A. Yes, I have an opinion on it, yes.

Q. Okay. Go ahead.

A. What actually happens is the ALEC would send a service inquiry style request to BellSouth in this situation. BellSouth would review the service inquiry form, check it for validity. And then at that point they would pass it on to the outside plant people, I guess you would say. And the outside plant people would then review the form, look at any type of things that need to be done to that particular loop, the location of the loop, whether or not it needs unbundled loop modification, so on and so forth. And then they would send that information back to be processed for billing.

Q. Okay. Have you ever performed that job yourself?

A. No, I haven't performed it myself. I worked daily with the customer services group that did.

Q. You worked -- in what time frame was

this?

A. This would have been when I was working for GTE.

Q. So this would have been the '90 to '97 time frame?

A. Yes.

Q. In the 1990 to 1997 time frame, did GTE have operation support systems that it had set up for competitors?

A. No, it did not, to my knowledge.

Q. Have you ever worked hands on with operation support systems that are set up for competitors?

A. For competitors, I have not.

Q. Will you agree with me from a premise that BellSouth's outside plant technicians are more familiar with BellSouth's network than you are?

A. Yes.

Q. Would you expect to find bridged tap within 9 kilofeet from the central office?

A. Would you expect to find it? You could find it. I don't know if you would expect to see it. It's possible that it could be there, but I wouldn't expect it.

Q. Going back to the movie, as I call it, for a second -- and granted, I will give you that that was an extreme case --

A. Um-hmm.

Q. -- did you see anything on the film that was unnecessary, that you looked at and said that is not something that I ever did or that is something that they should not have done in the process?

A. I'm just trying to think back at the film for just a second. I'm thinking back to where they were toning each individual pair after they located the pairs that they were to condition. I don't think that's always necessary after you find the group of cable pairs that you're going to work within. So that would be one thing that I don't think is necessary.

Q. Is that something you ever did? You never toned pairs?

A. Yeah, we did have to tone pairs, tone a pair to locate your binder group that you were going to work in or the number of cable pairs that you were going to work in if you were working in pulp cable. We did do

that. We didn't tone each individual pair that we were going to condition. Also, in the video, they were performing some typical maintenance functions. They were repairing the grounding bonds after they had conditioned the pairs, which I don't feel that is necessarily a part of unbundled loop modification. That's a regular maintenance function. Of course, they did repair the hole in the wall, which I would consider typical maintenance. The pumping that they had done, to me seemed like it took an excessive amount of time based on the size of the pump that they were using. I think typically if you would have an amount of water that would need to be pumped like that extremely large manhole with an extremely large amount of water, that you would use a little larger pump than what they were using to pump it out, maybe like a 3 or 4-inch pump would be something that we would have use.

Q. Did you find fault with them adding a second pump to try to get it down?

A. I wouldn't find fault with that, no. I think that the technicians worked hard. And, you know, but I don't think necessarily that

everything they had done was the most efficient way to do it.

Q. Now, you also had some issues with the engineering times.

A. Yes.

Q. And BellSouth uses the -- I never get this acronym right -- Computer-Aided Design system?

A. Yes.

Q. CADs. Is that what they call it CADs?

A. CAD, yes, C-A-D.

Q. Are you familiar with that system?

A. I'm familiar with BellSouth uses Mapviewer, or has access to Mapviewer. And, yes, I am familiar with that.

Q. Have you ever used a CAD system?

A. Yes, I have.

Q. They had that in GTE?

A. No. Actually, I have used one of those systems since I've been in the consulting business.

Q. Oh, okay.

A. But they did have CAD systems at GTE also, yes, they did.

MR. EDENFIELD: Let me go through real quick I may be done.

(Whereupon, there was a brief recess.)

Q. (By Mr. Edenfield) Take a look at page 22 and page 23 of your testimony. You've got a list of activities. Are you with me?

A. Yes.

Q. A through H?

A. Um-hmm.

Q. While we certainly disagree on the times, are there any one of these that you feel like is completely unnecessary or that BellSouth does not actually perform? That may be two separate questions.

A. Give me just a second.

Q. Sure. Take your time to look through them.

A. To the first part of your question, no, I have no reason to believe that these steps are not necessary.

Q. Okay.

A. What was the second part? I forgot.

Q. Well, since the other part of that was or don't perform, but I assume you agree

that we actually perform the steps?

A. Yes, I would say you would.

Q. And your disagreement is not over whether it's necessary; it's over the amount of time it takes to complete it?

A. Yes.

MR. EDENFIELD: I think I'm done with Mr. McPeak. Any --

MR. SLOAN: No redirect.

MR. EDENFIELD: Diana, did y'all have any questions?

MS. CALDWELL: Yes, we just had one or to to.

CROSS-EXAMINATION

BY-MS.CALDWELL:

Q. Mr. McPeak, good morning. This is Diana Caldwell with the Florida Commission staff.

A. Good morning.

Q. Good morning. You stated that you had watched BellSouth's video for removal of the load coil; is this correct?

A. Yes, ma'am.

Q. Did you happen to notice whether the hose that pumped the water out of the manhole

had a kink in it?

A. No, you know, I apologize. I didn't notice that, if it did.

Q. Well, if it did, would this account for an inordinate amount of time to pump the manhole?

A. I would say that, yes, if it had a kink in it, I think it would affect the way that the pump would operate, yes.

MS. CALDWELL: All right. That's all I had. Thank you.

THE WITNESS: Thank you.

MR. EDENFIELD: All right. I guess we are done with Mr. McPeak.

(Cross-examinaiton concluded.)

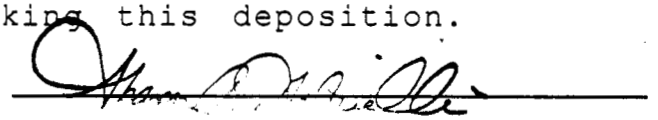
STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that the foregoing transcript was reported, as stated in the caption, and the questions and answers thereto were reduced to typewriting under my direction; that the foregoing pages represent a true, complete, and correct transcript of the evidence given upon said hearing, and I further certify that I am not of kin or counsel to the parties in the case; am not in the employ of counsel for any of said parties; nor am I in anywise interested in the result of said case.

Disclosure Pursuant to O.C.G.A. 9-11-28 (d):

The party taking this deposition will receive the original and one copy based on our standard and customary per page charges. Copies to other parties will be furnished based on our standard and customary per page charges. Incidental direct expenses of production may be added to either party where applicable. Our customary appearance fee will be charged to the party taking this deposition.



SHARON A. GABRIELLI, CCR-B-2002

CAPTION

The Deposition of ***Eric McPeak***, taken in the matter, on the date, and at the time and place set out on the title page hereof. It was requested that the deposition be taken by the reporter and that same be reduced to typewritten form. It was agreed by and between counsel and the parties that the Deponent will read and sign the transcript of said deposition.

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, FPSC Bureau of Reporting, Official Commission Reporter, do hereby certify that the Hearing in Docket No. 990649-TP was heard by the Florida Public Service Commission at the time and place herein stated.

It is further certified that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript, consisting of 185 pages, Volume 18 constitutes a true transcription of my notes of said proceedings and the insertion of the prescribed prefiled testimony of the witnesses.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 24TH DAY OF OCTOBER, 2000.

JANE FAUROT, RPR
FPSC Division of Records & Reporting
Chief, Bureau of Reporting
(850) 413-6732