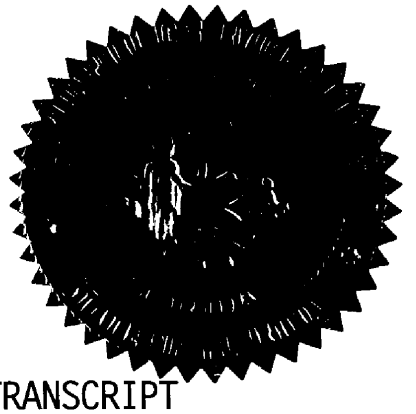
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 001797-TP

In the Matter of

PETITION BY DIECA COMMUNICATIONS, INC. D/B/A COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF UNRESOLVED ISSUES IN INTERCONNECTION AGREEMENT WITH BELLSOUTH TELECOMMUNICATIONS, INC.
_____/



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VOLUME 3

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PROCEEDINGS:	HEARING
BEFORE:	COMMISSIONER LILA A. JABER COMMISSIONER BRAULIO BAEZ COMMISSIONER MICHAEL A. PALECKI
DATE:	Wednesday, June 27, 2001
TIME:	Commenced at 9:35 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	TRICIA DeMARTE Official FPSC Reporter (850)413-6736
APPEARANCES:	(As heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

PROCEEDINGS

(Transcript continues in sequence from Volume 2.)

MS. BOONE: Covad calls Joe Riolo.

Do you want to take a break?

COMMISSIONER JABER: We're going to go ahead and have Mr. Riolo come up, tender him for cross, and we'll take a five-minute break just for the court reporter.

JOSEPH P. RIOLO

was called as a witness on behalf of Covad Communications Company and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. BOONE:

Q Would you please state your name for the record.

A My name is Joseph P. Riolo, R-I-O-L-O.

Q And Mr. Riolo, on whose behalf are you testifying here today?

A I'm testifying on behalf of Covad Communications.

Q Are you an employee of Covad?

A No, I am not.

Q Now, you're doing double duty here today, but this part of your testimony is on the collocation part. And did you cause to be filed 15 pages of rebuttal testimony on the collocation issue and no exhibits?

A That is correct.

Q And if I asked you substantially the same questions

here today, would your answers be substantially the same?

A Yes, they would.

MS. BOONE: I'd like to insert Mr. Riolo's collocation testimony into the record as though read at this time.

COMMISSIONER JABER: Now, isn't it more correct to say that his rebuttal testimony --

MS. BOONE: Yes, I'm sorry. It is rebuttal.

COMMISSIONER JABER: All right. Mr. Riolo's prefiled rebuttal testimony shall be inserted into the record as though read.

Q. Mr. Riolo, please state your name, title and business address.

A. My name is Joseph P. Riolo. I am an independent telecommunications consultant. My business address is 102 Roosevelt Drive, East Norwich, NY 11732.

Q. Mr. Riolo, please describe your qualifications and experience as they pertain to this proceeding.

A. I have been an independent telecommunications consultant since 1992. As a consultant, I have submitted expert testimony on matters related to telephone plant engineering in California, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin and the District of Columbia. I testified before this Commission in its recent Investigation into Pricing of Unbundled Network Elements, Docket No. 990649-TP, on behalf of BlueStar Networks, Inc., Covad Communications Company and Rhythms Links Inc.

As a consultant for a major ALEC, I have performed the function of Regional Field Engineer, assisting in the design and implementation of collocation arrangements in multiple states. During this time, I negotiated space, power and cable access requirements, inspected ILEC awarded construction activities on behalf of the client, recommended staging and assembly contractors and awarded contracts. I was responsible for oversight of all vendor activities for site construction/compliance to design specifications, as well as acceptance of completed sites. I arranged site turn-up and test with both the ILEC and ALEC. During the course of these activities and otherwise in my career, I had ample opportunity to personally perform the myriad of

functions and tasks associated with the design and construction of collocation sites as well as inspecting various ILEC Central Office locations and spaces. I have solicited bids, awarded contracts and have physically constructed collocation cages, associated bonding and grounding requirements and tagging (signage).

Furthermore, I have personally engineered all manner of outside plant, including underground, aerial and buried plant in urban, suburban and rural environments. I have engineered copper and fiber plant as well as provisioned analog and digital services. I have participated in the design, development and implementation of methods and procedures relative to engineering planning, maintenance and construction. During the course of my career, I have had opportunities to place cable (both copper and fiber), splice cable (both copper and fiber), install digital loop carrier, test outside plant, and perform various installation and maintenance functions. I have prepared and awarded contracts for the procurement of materials. I have audited and performed operational reviews relative to matters of engineering, construction, assignment, and repair strategy in each company throughout the original Bell System.

I directed operations responsible for an annual construction budget of $100 million at New York Telephone Company. My responsibilities included, but were not limited to, engineering, construction, maintenance, assignment and customer services.

Further detail concerning my education, relevant work experience and qualifications can be found in Exhibit No. _____ (ERYK/JPR-2) to my Joint Direct Testimony, filed with Ms. Kientzle in this proceeding.

Q. What is the purpose of your rebuttal testimony?

A. Covad Communications Company ("Covad") has asked me to review and analyze the BellSouth proposed collocation rates and offer some engineering perspective to the rate elements as proposed. Specifically, I will address issues related to BellSouth's proposed collocation rates, Issue 29.

Issue 29: WHAT RATES SHOULD COVAD PAY FOR COLLOCATION?

Q. Have you reviewed BellSouth's cost study and proposed rates for collocation for Florida?

A. Yes. As usual, BellSouth has provided a scarcity of information substantiating its costs and rates. Nonetheless, I have focused on a few key areas that are of particular concern to Covad. I do not believe the Commission can establish permanent rates based on what BellSouth has filed in this docket.

Q. How is your testimony organized?

A. My testimony focuses on a number of the most obvious erroneous task times or unsupportable assumptions in the BellSouth collocation cost study. For simplicity sake, I will identify the rate element by number, then I will describe changes I would make to task times, inputs or other factors underlying that particular proposed rate.

1. Application and Subsequent Application Charges - Element H.1.1, H.1.46

Q. What is BellSouth's proposed rate for an Application for Physical Collocation?

A. BellSouth proposes $3,760 for the original application and $3,134 for a Subsequent Application. The initial application fee would be paid by every ALEC every time it applies for a new collocation space. At this stage of Covad's business plan, the

Subsequent Application is equally, if not more, important than the original application fee. BellSouth charges the Subsequent Application fee whenever Covad makes any modification whatsoever to its space, such as adding a new bay for additional equipment or requesting additional cable terminations. Both fees are grossly inflated.

Q. Please explain your concerns about the task times that underlie these fees.

A. BellSouth's study reveals that the following work groups are involved in a single application for unbelievably high amounts of time for an initial Application: Account Team Collocation Coordinator (ATCC) = 11 hours, Interexchange Network Access Coordinator (INAC) = 20 hours, Power Capacity Management (PCM) = 1 hour, Circuit Capacity Management (CCM) = 8 hours, and Common Systems Capacity Management = 8 hours. Additionally, BellSouth proposes that the ATCC/Clerical, Outside Plant Engineering, Corporate Real Estate & Support are all involved for an hour or so.

That's 51.25 hours for a single application. For Subsequent Applications, the work times are only slightly reduced, totalling 39.6 hours. There is no support or justification for any of these task times. BellSouth has supplied no explanations for the work, no time and motions studies or any other support whatsoever. Moreover, given my experience, it remains unclear to me what all these groups are doing for these enormous amounts of time.

Q. What are the reasonable steps and task times for evaluating an Application for collocation?

A. The process should be quite simple. BellSouth receives the applications by email (a process introduced only recently which should capture some efficiencies). That

application is logged in and routed to the appropriate clerk for processing, tasks which are all accomplished via computer and which should be done in 15 minutes or less. That clerk is then responsible for sending the application electronically to various teams necessary to determine if there is space available, and if so, where collocation space will be provided to Covad. The Central Office engineer should know off hand if the space is available, and if not, he can easily consult his marked up floor plan. That process should take approximately 30 minutes. Likewise, the Central Office power engineer will investigate the availability of spare power to meet the requirements of the collocator. Again, that work should not take more than 30 minutes and that's very generous. The account team representative or clerk should manage sending and receiving the appropriate information necessary to return a space/no space response and to provide the information necessary for a Covad to place a firm order for the space. If space is not available, which would be the worst case, the engineer would have to determine what work is necessary to prepare the space. None of the space preparation work will be done during the application process, though, so no time associated with that work should be included in the application cost.

Since space preparation charges are now imposed on a per square foot basis as are common system modification charges, calculating the price quote for collocation requirements will be a simple task, accomplished in no more than 30 minutes. Thus, the entire application should be successfully reviewed and the appropriate response sent to Covad with no more than two hours of BellSouth work having been performed. The Commission should reject BellSouth's proposed task times and assess an application

and subsequent application charge based on these reasonable times.

Q. Has BellSouth provided any explanation for these Application charges?

A. Not in this docket. However, in Louisiana and Alabama cost proceedings, BellSouth has attempted to explain these excessive fees on the following basis. Much of the work done regarding the application is intended to enable BellSouth to monitor and adhere to its regulatory obligations regarding collocation intervals. In fact, in Alabama, Mr. Shell testified that the electronic collocation application systems is used mostly to help BellSouth monitor whether it has responded to the applications in a timely fashion. Covad and other ALECs should not be required to bear the burden of BellSouth's regulatory obligations. These are costs that BellSouth should bear and they should not be wrapped into application fees that create barriers to entry for Covad and other ALECs.

2. Firm Order Processing Charges - Element H.1.45

Q. What rates does BellSouth propose for Firm Order Processing?

A. BellSouth seeks to saddle Covad with $1,202 in firm order processing fees in addition to the application fees.

Q. What's wrong with BellSouth's proposal?

A. BellSouth again suggests that 20 hours of work will be necessary for the Interexchange Network Access Coordinator (INAC). Combined with the 20 hours for INAC required for the Application or 15 hours required for the Subsequent Application, BellSouth expects that this group must spend between 35 and 40 hours on each collocation application. That's ridiculous.

First, BellSouth tacitly admits that work done to prepare the space for collocation or to augment power systems is not part of the Firm Order Processing charge, since those groups are not involved in the Firm Order process. Thus, BellSouth admits that costs of generating, approving, awarding, implementing and completing space preparation work in the central office is recovered in the recurring charge for space preparation. Likewise, any work required by the power engineer to install additional power capacity would be recovered in the recurring common systems modification charge. Thus, there is no explanation for 20 hours of work by the INAC. This group's task times should be completely eliminated.

3. Collocation Cage Construction -- Element H.1.23

Q. How does BellSouth arrive at its proposed rates for wired mesh cage construction?

A. It's not entirely clear. First, BellSouth assumes that it will build 3 full cage walls. In my experience, its much more likely that BellSouth would only be building 2 walls per cage, or 2.5 on average at the most. By assuming that it will build 3 full walls, BellSouth raises the costs.

Then, BellSouth assumes that the construction, the grounding, the minimal electrical work necessary, the engineering, and supervision of this process will cost ***BST PROPRIETARY [redacted] *** END PROPRIETARY. In my experience, BellSouth has greatly inflated the cost of materials, labor and management of this process. The price of cage material on the internet is $928 for a 10 x 10 cage, but BellSouth proposes ***BST PROPRIETARY [redacted] ***END PROPRIETARY for the

same material, a grossly excessive amount considering market factors. Furthermore, when I managed central office space preparation for a major ALEC, the contractor I used charged $430 for grounding work for a 10 x 10 collocation space, whereas BellSouth seeks to charge ***BST PROPIETARY [redacted] ***END PROPRIETARY. Likewise, the contractor I used charged $500 for managing the project, while BellSouth assumes it will cost ***BST PROPRIETARY [redacted] ***END PROPRIETARY.

The bottom line is that I've constructed caged collocation spaces for less than $4000 while BellSouth proposes ***BST PROPRIETARY [redacted] ***END PROPRIETARY. BellSouth rates should be reduced to reflect the more reasonable material and labor costs I have proposed.

4. Security System Development-Element H.1.37,H.1.38, H.1. 39

Q. How has BellSouth proposed to charge Covad for Security Systems?

A. In several ways, all of which appear to unnecessarily increase Covad's costs. First, BellSouth proposes a Security Access System on a per square foot basis. There is a nonrecurring charge of $55.59, presumably for every collocation space, and there is a $0.0113 recurring charge assessed for every square foot of space used by Covad in a central office. So essentially, BellSouth will be recovering the cost of installing its security systems for as long as a Covad has the collocation space. This charge appears to apply even when the "security system" is nothing more than a lock and key. Although this charge seems small, all of these per square foot charges add up.

Second, BellSouth offers no explanation for what is occurring to activate or deactivate a security system card. The excel spreadsheet for element H.1.38 indicates

that it will take a clerk 12 minutes to activate a new access card. That seems like an excessive amount of time to type in a few commands and build a record, the same work steps that we've watched hotel staff perform when they activate a card key for a hotel room. As a result of these excessive task times, BellSouth proposes a rate of $55.59 nonrecurring for each card and then $0.0592 per month. This rate should be rejected.

Apparently the host system supports 2000 to 3000 units. Despite that range, BellSouth took the total cost of the unit and divided it by 2000 (rather than 3000), which increases costs without justification for why it excluded the possibility that 3000 units would be supported by a single host. If BellSouth has divided the costs by 3000, it would have achieved a cost of ***BST PROPRIETARY [redacted] ***END PROPRIETARY included in BellSouth cost study.

Additionally, BellSouth has assumed that there is 25% problem occurrence on every aspect of the security system. It seems unbelievable that a security system would have such a high problem occurrence on new access, lost/stolen cards or the transfer of cards. It appears that when BellSouth's contract labor resolves a problem with the system they developed and/or manage, then they pass the charge onto BellSouth (although we have been provided none of those documents). Then, BellSouth marks up those costs and imposes them on Covad and other ALECs. If a BellSouth system has a 25% problem occurrence, it should be repaired. Costs of perpetuating a nonfunctional system should not be passed on to Covad.

5. Cross Connection Charges -- Element H.1.9-H.1.12, H.1.31

a. Recurring Charges

Q. What backup documentation does BellSouth provide in support of its recurring cross connection charges?

A. Very little. I have found several unsupportable assumptions that underlie the rates, however. For example, BellSouth assumes that 300 feet of cable racking is needed for a single DS1 cross connect. This material investment underlies the recurring charge, but there is no support whatsoever for this assumption. If the cabling were shorter, the cost would be less. In several cost cases around the region, BellSouth has taken the position that a collocation space will rarely be further than 150 feet from the Main Distribution Frame. Thus, BellSouth's cable length assumption should be cut in half.

b. Nonrecurring Charges

Q. Do you have comments on BellSouth's proposed task times for cross connects included in the cost study?

A. Yes. BellSouth proposes that it takes 25 minutes to perform a single 2-wire cross connection for physical collocation. Likewise, BellSouth proposes that it takes 25 minutes to perform a 4-wire cross connection, a DS1 cross connection, a DS3 cross connection and fiber cross connection. For a 4-wire cross connection BellSouth proposes that it take 37.5 minutes simply to connect and test the connection. These task times are completely unsupported in the BellSouth study and, frankly, they are unsupportable.

Cross connections are among the most simple and routine tasks accomplished in a central office. In my experience, cross connections take only a few minutes to complete. BellSouth would simply not have enough staff if it really took 25 minutes

for every simply copper cross connection. Moreover, it could not have achieved the high amount of fiber in its network, if it took a skilled technician 37.5 minutes to connect and test each fiber cross connect. All of these task times should be reduced to no more than 3 minutes. That is a generous average time.

6. POT Bays (DSO, DS1, DS3) -- Elements H.1.13-H.1-16

Q. Please comment on BellSouth's proposed rates for the Point of Termination ("POT") Bays.

A. BellSouth recurring charges for DS0s, DS1, DS3 POT bays are developed using the percent of the bay that BellSouth claims will be used. Typically, there are 14 shelf positions on a 7-foot bay. BellSouth claims that only 12 will be used. Then BellSouth assumes that the collocator will occupy only 33% of the bay, with 3 DS1 panels and 1 DS3 panel. Then, BellSouth assumes that Covad will operate at 80% fill on each DS1 panel, so BellSouth calculates 33% times 80%, to arrrive at a circuit utilization of 26.4% for DS1s. For DS3s, BellSouth calculates that 33% of the bay times 18% for a circuit utilization rate of 5.94%. BellSouth's study assumes a variety of utilization rates without any support: the rates vary dramatically from 5.6% to 26% to 40%. There is no support for any of these utilization rates and BellSouth's repeated use of lower utilization rates increases Covad's costs. Through these calculations, BellSouth greatly decreases the fill rate and thus increases the recurring costs for all of these elements. This Commission should revise these calculations by assuming all 14 shelves will be used, and that the fill rate of 95% will be achieved.

7. Cable Records -- Elements H.7

Q. Please comment on BellSouth's proposed charges for cable records.

A. BellSouth proposes that it will take an astonishing 28 hours of engineering work to produce cable records in connection with a collocation arrangement. This strains credibility. BellSouth also claims it will take 14 hours for a voice grade cable record for collocation, as show in H.7.2. Any mechanized record system in use throughout the industry today should be able to generate records in minutes. Under forward-looking pricing principles, a fully mechanized system must be assumed.

For DS1 records, BellSouth admits that it will take only 6 minutes to retrieve the record (H.7.4); it assumes 21 minutes for DS3s (H.7.5). Although these are extremely high, they are not as outlandish as BellSouth's suggestion that it will take 4 hours (1.4 hours of engineering and 2.6 hours for the Circuit Provisioning Group) to generate a fiber record. That's generally a single strand of fiber. None of these task times are supported. In my experience, all of these records can be generated in a matter of minutes.

8. Space Preparation -- C.O. Modification Per Sq. Foot -- Element H.1.41

Q. How has BellSouth presented its space preparation charges?

A. Instead of charging the enormous nonrecurring space preparation charges on a nonrecurring basis, BellSouth has developed a per square foot space preparation charge. It must be noted that BellSouth is using embedded costs exclusively to create these rates. Rather than assuming it had a forward-looking network already built out to support ALECs, BellSouth appears to be using historical costs to project future costs, and thus to set rates. This contradicts the federal pricing rules.

Although a flat fee arrangement is generally positive, since every ALEC will pay this charge (irrespective of whether space preparation is necessary for its collocation location), it is critical that the amount be set properly. I have noted a number of problems with the way BellSouth has developed this rate.

First, the rate is based on a survey of 123 space preparation jobs between April and November 1999. Notably, these jobs are not the space preparation fees paid by individual ALECs, but rather are jobs which appear to add entire rooms on to BellSouth facilities. For Florida, for example, BellSouth included a sample of central office additions made to Vero Beach, Mandarin, and Golden Glades Central Offices, among others. These construction jobs appear to have included additions of entire floors, and all cost over $1 million dollars. No explanation is given about why BellSouth has used such outdated information and no detailed information is provided from which we can determine that the additional work was done exclusively for ALECs.

Significantly, BellSouth has always taken the position that it had no obligation to construct additions to its Central Offices to remedy a space exhaust situation. Thus, we can only assume that BellSouth constructed these additions for its own use, at least in part. Nonetheless, it appears that these are the types of construction jobs which are used to support the per square foot space preparation charge. ALECs will pay that charge for as long as they hold the collocation space, while BellSouth will apparently pay nothing for the portion of the space its equipment occupies (and for which the additions were done in the first place).

My final criticism about how BellSouth arrives at this charge is that the

construction jobs all took place between April and November 1999, apparently. This was a time of high volume collocation. Thus, the space constructed and prepared (and paid for by nonrecurring charges imposed on ALECs at that time) should, at least, somewhat compensate BellSouth for the work. Now, there is much less collocation activity, as some ALECs go out of business while others withdraw from collocation spaces. Thus, there should be a surplus of prepared space in the BellSouth system, consisting of space prepared and paid for in nonrecurring charges by ALECs, huge additions built to central offices, and space released by ALECs no longer operating in certain areas. Since BellSouth's charges do no appear to take any of this into consideration, they are too high and must be reduced.

9. Space Preparation -Common Systems Modification per sq.ft -- Cageless Element H.1.42

Q. What is this element for?

A. From the name, it appears to be a new BellSouth rate for space preparation work done on common systems, such as power or Heating, Ventilation, and Air Conditioning ("HVAC"). However, there is no explanation for how BellSouth reaches it proposed rates for this element. Strangely, the work paper BSCC 2.4, recurring cost summary for H.1.42, Cageless, shows inputs for poles, buildings, lands, conduit systems, and digital circuit (other). It's not clear to me how these inputs are used to create a rate for common systems upgrades chargeble to ALECs. Without support, the Commission should reject this rate proposal.

Q. What steps should the Commission take to adjust the BellSouth proposed rates in

this proceeding?

A. Throughout this proceeding, Covad has asked BellSouth to agree to interim rates, subject to true-up, which represented a compromise of the BellSouth rates and the rates Covad believes it should pay. BellSouth has steadfastly refused to agree to any interim rates other than what it proposes here. The Commission should take my recommendations and reduce the elements I've described specifically. The Commission should likewise apply some reasonable percentage decrease to all of BellSouth's remaining proposed rates, subject to true-up, until the generic collocation cost proceeding is concluded.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BY MS. BOONE:

Q And have you written a summary?

A Yes, I have.

Q Would you please give it.

A Good afternoon. Covad has asked me to review BellSouth's collocation costs and comment on them. As you will see from my testimony, I have spent over 30 years in the telecommunications industry engineering all manners of outside plant on behalf of a major ILEC. This work involved the design, the development, the implementation of telecommunications planning, maintenance, and construction functions. I've also had specific experience with collocation. I consulted for a major ALEC performing the function of the regional field engineer. Wherein, I assisted in the design and the implementation of collocation arrangements in multiple states. During that time, I negotiated space, power, and cable access requirements. I inspected ILEC-awarded construction activities on behalf of the client, and I performed many of the functions for which BellSouth has proposed rates.

I understand that the Commission intends to take up permanent collocation pricing in a later docket. For that reason, I propose that BellSouth's rates be reduced as interim rates until the final collocation cost docket. During negotiations, BellSouth was unwilling to accept any interim rate other than what it proposes. As my comments highlight,

these rates are simply too high and do not reflect efficient practices nor a forward-looking network.

I have proposed that these rates be reduced by a reasonable percentage for interim rates until the Commission sets permanent rates. BellSouth should not reap a windfall simply because final rates have not been set. That concludes my summary.

COMMISSIONER JABER: Thank you, Mr. Riolo.

MS. BOONE: He's available for cross.

COMMISSIONER JABER: Thank you. Let's take a five-minute break for the court reporter, and we'll conclude with this witness.

(Brief recess.)

COMMISSIONER JABER: Ms. Boone.

MS. BOONE: Mr. Riolo is available for cross.

COMMISSIONER JABER: Thank you, Ms. Boone. Mr. Twomey.

CROSS EXAMINATION

BY MR. TWOMEY:

Q Good afternoon, Mr. Riolo. My name is Mike Twomey; I represent BellSouth.

A Good afternoon.

Q Just so that the record is perfectly clear, I'm going to be asking you questions at this time about just the rebuttal testimony you submitted, and that testimony only concerned

BellSouth's collocation cost study; is that correct?

A That is correct.

Q You addressed the line sharing cost study in the panel testimony that you've also submitted along with another witness; correct?

A That is correct.

Q All right. You became an independent telecommunications consultant in 1992; correct?

A That is correct.

Q So during the time that you were employed by a regional Bell company, you did not directly provision any unbundled elements, including any collocation space to CLECs; correct?

A That is correct.

Q And to the extent that you provide testimony in this case about assumptions of work times, those are based on your experience doing whatever other things you were doing for the Bell companies before 1992; correct?

A Not exactly. Some of the task and task times that I propose or that I critique are predicated on past experience with the Bell operating companies. Some of the experiences were garnered while being a consultant for a major ALEC. In which case, you know, I did participate in, for example, cage constructions. So I'm intimately familiar with what is involved in something like that and the costs associated with

it. So I can speak knowledgeably from that perspective.

Q All right. Let's take a look at just one example on Page 5 of your rebuttal testimony. On Lines 7 through 9 -- it's actually 7 through 10, actually, you say that the central office power engineer will investigate the availability of spare power to meet the requirements of the collocator.

A That's correct.

Q And you estimate that will take 30 minutes.

A Yes, I do.

Q Have you ever physically sat down with a central office power engineer who was working through that type of task to provision collocation space to a CLEC?

A I have participated with a number of power engineers in the course of doing work for an ALEC. And to put it in perspective, I came from the New York company, and the engineers that I dealt with while I was consulting for the ALEC, a number of them were people that in the past had reported to my organization. So I knew them, and obviously, yes, I did participate in the function with them.

So, you know, for the most part, they are pretty knowledgeable in what is already installed in the central offices. They have a pretty good working knowledge of what is available. They have generally a finite number of offices that they handle, and they are pretty knowledgeable as to what's in there. So when they are running near capacity, they are

already planning the next addition.

In the case of a collocator, you know, it might mean that they need an additional BDFB or some fuse panel arrangement, but they are pretty knowledgeable on what's there and what would be required for the next job coming in. So it's a relatively minor task. It's not rocket science, trust me.

Q And I appreciate your explanation. I'm not sure whether yes or no is buried in that answer, so let me just try it again, and you can answer it any way you want. I'd just like to get a yes or no for the record.

Have you ever sat down with a central office power engineer who worked for an RBOC while he was performing the task of investigating the availability of spare power in connection with the provision of collocation space to a CLEC?

A Yes.

Q How many times have you done that?

A I hesitate to put an exact number to it, but, you know, certainly more than a half a dozen times.

Q How did you arrange that kind of a visit? Did you ask them that you could sit down and watch them do it so that you could keep a time on it?

A Well, in certain instances, we were told that space was not available, as an example. So we gathered up all of the appropriate persons who would be involved, and we visited the central office, and we looked for appropriate space. So the

individuals that were party to the decision making were all there.

And we went through the space. And it was, how about that space in the corner? And it was, well, you know, that space is kind of a lounge for the guys that come in and work out their trouble tickets at the end of the day or something.

And we said, well, you know, really, we shouldn't allocate a space like that for lounge purposes when we have a CLEC who wants a collocation arrangement.

So, you know, we mediated an arrangement, and we got a space. And naturally, the power guy was there. And, you know, what are we going to need for power? Do we have sufficient central office ground available for us? And the myriad of things that we look at, the racking and lighting and heating, air-conditioning and whatever. So the appropriate parties were there along with the coordinators.

Q So you had scheduled a specific meeting to talk about a variety of issues --

A In that particular instance, yes.

Q Now, typically, in a situation that you've described here, the central office power engineer, in performing his daily duties, which would include analyzing this type of thing, that's not going to be in the context of a specific meeting set up by a CLEC to discuss space availability, is it?

A It may or may not. In my case, I set it up. You

know, I mean, if you choose to just send a piece of paper in hopes that an answer comes back some day according to a schedule, you know, I guess you'll get what you get. By the same token, if you are really interested in getting what you need, then you ask the appropriate people. And you get them together, and we all sit eyeball to eyeball, and we make the decision. And most often, people are pretty reasonable once you get them eyeball to eyeball, you know. And unfortunately, they get caught up in their day-to-day jobs and whatever happens to be the hot button of the day is what they're working on, and your job may slip to the bottom.

Q All right. And maybe I am asking --

COMMISSIONER PALECKI: Excuse me.

MR. TWOMEY: I'm sorry.

COMMISSIONER PALECKI: You've just described a situation where you were able to get eyeball to eyeball with the ALEC, and you came to an agreement. Did you participate as part of your consulting functions for Covad in the arbitration in this case?

THE WITNESS: No, I did not.

COMMISSIONER PALECKI: Don't you think that with your expertise and your knowledge in this area of collocation costs that you could have been of value to help Covad in reaching an agreement with BellSouth in this particular instance?

THE WITNESS: Well, certainly. Without it sounding

like a commercial, you know, I am an independent consultant, and I'd be more than happy to offer my services. Unfortunately, I was not asked.

COMMISSIONER PALECKI: But as you stated earlier, the eyeball-to-eyeball mediation and arbitration is very important, is it not?

THE WITNESS: It certainly is, and likewise, the fact that I knew a great deal of the people. So that also helps.

COMMISSIONER PALECKI: I guess what distresses me is seeing the parties put more of their resources in the litigation of these issues before the Commission than they put in the actual arbitration of these issues. And that seems to me where the focus needs to be, especially when we have experts like yourself who could have assisted in the arbitration aspect of this particular docket.

THE WITNESS: A point well taken.

COMMISSIONER PALECKI: I know you can't answer that question, but I'm just venting right now.

THE WITNESS: Again, a point well taken.

COMMISSIONER PALECKI: Thank you.

MR. TWOMEY: Thank you, Commissioner.

BY MR. TWOMEY:

Q All right. Mr. Riolo, I want to make sure that I understand the basis for some of the task times that you've got in here. And what I'm -- as a preliminary question, what I'm

trying to get to -- and if my questions have been inartful, I apologize. I'm not asking you to tell me what informal discussions or what meetings you set up with various Bell representatives. I understand that you've done that.

My question is, how many times have you gone into a Bell central office, or whatever the appropriate building is, to actually observe and time BellSouth or other RBOC employees performing the tasks that you discuss in your testimony? That's what I'm trying to get to. Have you ever done that?

A For specific instances, no --

Q Okay.

A -- as far as holding a timepiece and actually doing a time and motion study, so to speak. In other instances throughout my career where I was involved in doing audits, operational reviews and, indeed, time and motion studies, certain functions I have, for example, performed those particular functions. And they may have been worked into some of the numbers that I have here.

Q And just to be clear, to the extent that you have acquired any knowledge or information during your career at a Bell employee, I mean, as a Bell employee, that was all before the 1996 Act and before the provision of collocation space to CLECs; correct?

A Yes, it's correct. But again, bear in mind that the functions of performing the day-to-day job, for the most

extent, probably haven't changed in a hundred years. I'd like to say that provisioning, as an example, is akin to connect the dots. We take an instrument, a telephone, at a customer's premise, and it goes to a NID, the network interface device, on the side of the house. There's a little jumper wire that connects the dot to the next piece of the facility, which is the drop wire. The drop wire is that wire that hangs from the pole to the house. And that connects the next piece, and that goes with terminal.

From the terminal, it goes into a cable, which is called a distribution cable, and goes towards the central office. Generally, at a point in space, there will be a serving area interface. It's a cross-connect terminal. So the cable pair will end at that point and another jumper connects the dot to the feeder cable. The feeder cable takes the path from the serving area interface back to the central office.

When the pair of wires get into the central office on the main frame, again, we connect the dot. We run a cross-connection over to the line equipment side of the frame which takes it to the switch. And that's the path that's created. So the dial tone flows from the switch to the cross-connection, out to the cable pair, the feeder pair, into the field, through the cross box, out into the distribution path, into the serving terminal, out the drop wire, across the NID, and it rings your telephone. And that's how it all works.

And if it gets any more sophisticated than that, it still conceptually is the same thing. If it uses fiber optics, pair gain equipment, it's still connecting the dots. And that's all telephone work is.

Q Thank you. On Page 7 of your testimony -- and I am into pages of the testimony that contain proprietary information. I do not intend to ask you about the proprietary numbers. If you think you need to tell me to respond to my question, you need to disclose that, I'd like you to tell me that before you do it, if that's okay.

A That's fine.

Q On Page 7, you have a figure of $928 for a price of a cage that you say you found on the Internet; correct?

A That is correct.

Q Who was the provider of that equipment? Who is the manufacturer of that equipment?

A I did provide the Web page in discovery. Unfortunately, they had a disclaimer at the end of the Web site. I was going to print it, and it said that it was not to be reproduced. And that's why in discovery I only gave the Web page, but the number is vividly displayed right on that Web page.

Q My question is: Who is the manufacturer?

A The manufacturer of the cage material?

Q Yes.

A I might just have that. From the information I have, they just called itself "Innovative Material Handling, Incorporated" for the $928 figure. Something that was not proprietary I happened to bring with me. It's a little bit different than $928, but this happens to be a publicly available catalogue, also on the Internet, and the price is just slightly over a thousand dollars.

MR. TWOMEY: Let me say this. I did not ask him anything about any other sources of information, and I don't want to cut off the Commission's access to additional information, but I don't think it's appropriate for him to introduce that in response to my question.

COMMISSIONER JABER: I don't think he was introducing it. I think he was elaborating on his answer. But I would agree with you. To the degree there is anything that needs to be covered in addition, it can be covered in redirect, Ms. Boone. But I would note that Mr. Twomey did not ask about additional resources, so I don't think he opened any doors.

Mr. Riolo, try to stick to the yes-or-no answers, and then elaborate on that direct answer.

THE WITNESS: Yes, I will. Thank you, Commissioner.

BY MR. TWOMEY:

Q Mr. Riolo, do you know to what specifications this cage that you found on the Internet was built to?

A I do recollect having seen something to the effect of

the gauge of the wire, if that's what you're referring to.

Q Do you know whether this manufacturer has a history of a good reputation in the industry?

A I personally don't know this manufacturer. I found this on the Internet.

Q Was it your practice when you worked for -- Bell Atlantic; is that right?

A I actually worked for New York and NYNEX.

Q Okay. Was it your practice when you worked for NYNEX to buy equipment off of -- I guess at that time the Internet may have been new, but would you have been purchasing equipment for use in your central offices off the Internet or --

A Interestingly enough, I procured the material for the New York company for some eight years, so I am very familiar with procurement practices. Provided it met the specification, we solicited proposals and quotes and awarded contracts accordingly.

Q And when you awarded contracts for the purchases of materials, you took into consideration factors other just than price; correct?

A I'm sorry, would you --

Q When you did procurement, you took factors into consideration other than price; correct?

A Well, certainly, yes.

Q And BellSouth is entitled to conduct its procurement

activities and take into consideration things other than price when it buys equipment; correct?

A Yes. BellSouth is entitled, and it certainly is their prerogative, to spend whatever it deems necessary to spend for any of its functions. What I quarrel with is the price that it passes on to my clients.

Q There's no suggestion in your testimony that BellSouth doesn't actually pay, and I won't disclose the price, but the price that's set forth in your testimony for the equipment. And I'm talking about the equipment on Page 7.

A No, it does not pay that price. That price that we see, if I'm referring to the same Lines 18 and 19.

Q Yes.

A Those prices are generated based on some factors that bump the price up.

Q Such as utilization; correct?

A Such as utilization.

Q All right. On Page 8 of your testimony, you indicate that you have a contractor who would do some grounding work for you for $430. Do you see that?

A Yes, I do.

Q In the context of your testimony, it looks like you were coordinating the placement as a consultant working for an ALEC and who was placing equipment with an RBOC; is that right?

A Yes. The ALEC I represented had hired me on a

consulting basis to perform the work that -- of a regional field engineer, and part of the responsibilities was to, in this case, get collocation arrangements designed and installed.

Q Now, BellSouth has employees who perform the functions that are at issue on this particular question; correct?

A You say "employees," direct employees as opposed to contractors?

Q Yes.

A I don't believe that all of the personnel involved are direct employees.

Q Okay. To the extent that this contractor performed work for you, do you know whether he would have qualified as a BellSouth certified vendor?

A I would like to say he is a BellSouth certified vendor. He certainly is a Verizon certified vendor, but I believe he did some work for BellSouth.

Q Now, Covad does have the option of using its own vendors for some of the work; correct?

A That is correct.

Q Now, on Page 10 of your testimony, you talk about the feet of cable needed, on Line 4.

A That is correct.

Q When you go from the main distribution frame, you've got a cable over to the frame and then back; correct?

A It depends on the design, but certainly, that's conceivable. You could have an instance like that.

Q And if you have several pieces of cable going over and coming back a distance of 150 feet, the total amount of cable used would be about 300 feet; correct?

A Again, in your hypothetical where you are going to run a cable from the main frame 150 feet away, and do whatever you're proposing on doing there, and bringing it back to the main frame, in your hypothetical, that would equate to 300 feet.

MR. TWOMEY: That's all I have.

COMMISSIONER JABER: Commissioners. Staff.

MS. BANKS: Yes, Staff has just a few questions for Mr. Riolo.

CROSS EXAMINATION

BY MS. BANKS:

Q Good afternoon, Mr. Riolo.

A Good afternoon.

Q I'm Felicia Banks, and I'll be asking you a few questions on behalf of Commission Staff. Earlier, Ms. Boone indicated during her opening statements that Covad is seeking an interim collocation rate in this proceeding; is that correct?

A That is correct.

Q And isn't it true that Covad's position that rate

setting in this proceeding would be subject to a true-up at some date in the future?

A Yes, when permanent rates are set at a subsequent proceeding.

Q And I guess one question I would like to ask, and I'm not sure if you would have the answer to this or not, and feel free to let me know if you don't, are you aware that there may be a future date or a second phase of the collocation docket pending before the Commission?

A I'm led to believe that there is a pending docket.

Q Okay. So as it relates to those rates that you just stated that would be subject to future true-up at that time, is that in connection with the collocation docket when you referenced that?

A Yes, it is.

MS. BANKS: Okay. I believe that's all I have for you, Mr. Riolo. Thank you.

COMMISSIONER PALECKI: I'd like to ask a follow-up on the Staff's question. And that is, you have suggested an interim rate that would be then trued up after the Commission came up with permanent rates on collocation. What if we looked at this from another angle and we went ahead and allowed the BellSouth suggested rates to remain in place on an interim basis, but that there would be a true-up after the permanent collocation rates were put in place that could result if those

permanent rates are less expensive and Covad receiving a refund at that time? Would that be satisfactory?

THE WITNESS: I think from the perspective of my client, they would prefer to have their piece up front rather than await the potential for getting something back at a future point in time.

COMMISSIONER PALECKI: I understand that, but wouldn't the opportunity if the parties were able to come to an agreement, as I've suggested, the opportunity to get some true-up and some refund later on, be better than just knowing that you're going to pay the money and you're not going to receive anything if the permanent rates are lower?

THE WITNESS: Well, I guess from my perspective, having looked at the collocation cost study, it raises very serious doubts in my mind relative to the costs that were proposed. There also didn't appear to be sufficient information available to me about some of the numbers. So I believe that there is a potential for more.

Certainly, those things that I cite I feel pretty strongly about, that the overstatement is apparent and should be corrected now rather than allowing BellSouth to reap a windfall, as I said, because they are putting in an excessive charge at this point in time or proposing an excessive charge. And I don't think it would be fair on behalf of my client to say that they should have to eat that cost now with the

prospect of potentially getting something back at a future point in time.

COMMISSIONER PALECKI: But no matter whose rates we use, BellSouth's or Covad's, Covad is certainly in a better posture if the rate is viewed as an interim rate subject to true-up; correct?

THE WITNESS: I would believe so.

COMMISSIONER PALECKI: Thank you.

MS. BOONE: I have no redirect.

COMMISSIONER JABER: Thank you, Ms. Boone.

Mr. Riolo, don't go far. We're about to take the joint testimony up.

MS. BOONE: Covad calls the panel of Joe Riolo and Elizabeth Kientzle.

COMMISSIONER JABER: It's Kientzle? How do you pronounce your last time?

WITNESS KIENTZLE: It's pronounced Kientzle.

JOSEPH P. RIOLO
ELIZABETH R.Y. KIENTZLE

were called as a panel of witnesses on behalf of Covad Communications Company and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. BOONE:

Q Would you both state your names for the record, please.

A (By Ms. Kientzle) My name is Elizabeth R.Y. Kientzle, K-I-E-N-T-Z-L-E.

A (By Mr. Riolo) My name is Joseph P. Riolo, R-I-O-L-O.

Q And were you both here earlier when Commissioner Jaber swore in the witnesses?

A (By Ms. Kientzle) Yes, I was.

A (By Mr. Riolo) Yes, I was.

Q And you are both subject to that oath?

A (By Mr. Riolo) Yes, we are.

Q Did you both cause to be filed in this docket 38 pages of direct testimony with 4 exhibits?

MS. BOONE: Which perhaps we could number as Composite Exhibit 12.

COMMISSIONER JABER: Let's insert the testimony, and go ahead and introduce the rebuttal and we'll --

MS. BOONE: Okay.

BY MS. BOONE:

Q And the rebuttal of 45 pages and 2 exhibits?

A (By Ms. Kientzle) Yes, we were.

A (By Mr. Riolo) Yes, we are.

COMMISSIONER JABER: Let the record reflect that the joint prefiled direct testimony of Elizabeth Kientzle and Joseph Riolo is inserted into the record as though read, and the joint prefiled rebuttal testimony of Ms. Kientzle and

Mr. Riolo is inserted into the record as though read.

MS. BOONE: And we have the matter of four exhibits accompanying the direct, which we could label as Composite Exhibit 12.

COMMISSIONER JABER: Ms. Boone, I think I'd like to label Composite Exhibit 12 the two resumes. So JPR-1 and JPR-2, which are the resumes, will be labeled as Composite Exhibit 12. And the line sharing exhibits, JPR-3 through JPR-5, are Composite Exhibit 13. And JPR-6 will be Exhibit 14. Does that work?

MS. BOONE: Thank you, Commissioner.

(Exhibits 12 through 14 marked for identification.)

BY MS. BOONE:

Q And do you have any corrections to be made to any of this testimony?

A (By Ms. Kientzle) Yes, we do.

Q Would you please make that now.

A (By Ms. Kientzle) In our direct testimony filed on May 23rd, on Page 22, Line 11, it should read, "The illustrative prices shown in Exhibit ERYK/JPR-3 include a Florida-specific common cost markup of 6.24 percent."

Also, in our May 23rd rebuttal --

COMMISSIONER JABER: Before you move on to the rebuttal, would you repeat the change you made to Page 22?

WITNESS KIENTZLE: Certainly. On Page 22 of the

direct, Line 11, the word "above" should be replaced with "in Exhibit ERYK/JPR-3," so that it reads, "The illustrative prices shown in Exhibit ERYK/JPR-3 include a Florida-specific common cost markup of 6.24 percent."

In our rebuttal testimony on Page 18, beginning on Line 13 and going through Line 18, that should read, "Given BellSouth's assumption that its splitter bays will hold eight 96-line splitters, BellSouth would assign $9,489.28 in total investment, in parentheses, $1,186.16 times 8, or about $180.43 per month per bay. At most, each bay might consume 10 square feet of office space. Given this assumption, BellSouth's methodology assigns building cost to splitter bays at more than $18 per square foot per month."

BY MS. BOONE:

Q Okay. You're going to need to do that one again, I think. And perhaps, if you could, just highlight exactly where the changes are.

A (By Ms. Kientzle) Certainly. So on Line 14, we need to change the word "annual" to "total."

MR. TWOMEY: I'm sorry, what page are we on again?

WITNESS KIENTZLE: We're on Page 18, Line 14.

A We need to change the word "annual" to "total." On Line 15, we need to change the figure "$790.78" to "$180.43." And on Line 17, we need to change the figure "$79" to "$18."

MS. BOONE: Mr. Twomey, did you get that?

COMMISSIONER PALECKI: And would we also change the asterisk to a times, or is that generally accepted usage? That is a symbol for times.

WITNESS KIENTZLE: It is a times. It's generally accepted usage. You'd have to use a special character in Word to get the multiplying symbol which doesn't show up on everyone's printer.

COMMISSIONER PALECKI: I just never saw that in my simple math. We didn't learn that at law school.

COMMISSIONER JABER: But I wasn't going to say anything, though.

MS. BOONE: Mr. Twomey, did you get those changes?

MR. TWOMEY: I got those changes. And I will stop using those little "X." I thought that was appropriate.

BY MS. BOONE:

Q With those changes, Mr. Riolo and Ms. Kientzle, if I asked you substantially the same questions, would your answers be substantially the same?

A (By Ms. Kientzle) They would.

A (By Mr. Riolo) Yes, they would.

I. INTRODUCTION AND WITNESS QUALIFICATIONS

Q. What is the purpose of your testimony?

A. Covad Communications Company ("Covad") has asked us to provide expert testimony on the appropriate costs and prices, as well as some of the terms and conditions, of the line-sharing network elements that Covad will purchase from BellSouth Telecommunications, Inc. ("BellSouth"). Specifically, we address arbitration issues 16, 18, 23 and 24 (with respect to line-sharing costs only).

Q. Ms. Kientzle, please state your name, title and business address.

A. My name is Elizabeth R. Y. Kientzle. I am an independent consultant. My business address is 672 Jean Street, Oakland, CA 94610.

Q. Ms. Kientzle, please describe your qualifications and experience as they pertain to this proceeding.

A. I have over ten years of experience in utility analysis and regulatory advocacy, primarily in the local telecommunications and electric markets. I specialize in cost analysis, cost modeling, and market price forecasting. I have served as an expert witness on energy and telecommunications issues before state regulatory commissions in California and Nevada. I have performed cost analyses and critiqued utility cost modeling in support of expert witness testimony regarding unbundled network elements on behalf of competitive local exchange carriers in proceedings in California, Florida, Georgia, Maryland, New Jersey, New York, Pennsylvania, and Texas. Most recently, I have concentrated on cost issues of

particular interest to competitive providers of digital subscriber line ("DSL") services. Previously, I have studied costs related to electric industry deregulation, electric competitive bidding, power plant siting, and payments to independent power producers.

I have been an independent consultant since 1997. Prior to that time, I worked as a senior consultant with the firms of Slater Consulting and Morse, Richard, Weisenmiller & Associates. I received an M.A. in mathematics from University of California–Berkeley.

Exhibit _____ (ERYK/JPR-1) to this testimony provides more detail concerning my education, relevant work experience and qualifications.

Q. Mr. Riolo, please state your name, title and business address.

A. My name is Joseph P. Riolo. I am an independent telecommunications consultant. My business address is 102 Roosevelt Drive, East Norwich, NY 11732.

Q. Mr. Riolo, please describe your qualifications and experience as they pertain to this proceeding.

A. I have been an independent telecommunications consultant since 1992. As a consultant, I have submitted expert testimony on matters related to telephone plant engineering in California, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin and the District

of Columbia. I testified before this Commission in its recent Investigation into Pricing of Unbundled Network Elements, Docket No. 990649-TP, on behalf of BlueStar Networks, Inc., Covad Communications Company and Rhythms Links Inc.

I have personally engineered all manner of outside plant, including underground, aerial and buried plant in urban, suburban and rural environments. I have engineered copper and fiber plant as well as provisioned analog and digital services. I have participated in the design, development and implementation of methods and procedures relative to engineering planning, maintenance and construction. During the course of my career, I have had opportunities to place cable (both copper and fiber), splice cable (both copper and fiber), install digital loop carrier, test outside plant, and perform various installation and maintenance functions. I have prepared and awarded contracts for the procurement of materials. I have audited and performed operational reviews relative to matters of engineering, construction, assignment, and repair strategy in each company throughout the original Bell System.

I directed operations responsible for an annual construction budget of $100 million at New York Telephone Company. My responsibilities included, but were not limited to, engineering, construction, maintenance, assignment and customer services.

Further detail concerning my education, relevant work experience and qualifications can be found in Exhibit _____ (ERYK/JPR-2) to this testimony.

Q. What role did each witness play in the preparation of this testimony?

A. Although both of us have reviewed and support this testimony in its entirety, each of us assumed primary responsibility for specific segments of testimony. We each rely on the facts and analyses developed by the other in his or her areas of primary responsibility. Specifically:

- Ms. Kientzle is primarily responsible for the costing and pricing issues.
- Mr. Riolo is primarily responsible for technical and engineering issues, as well as terms and conditions.

II. SUMMARY: COVAD NEEDS REASONABLE RATES, TERMS AND CONDITIONS TO SUCCESSFULLY PROVISION LINE-SHARED LOOPS IN FLORIDA.

Q. What criteria must the prices for line-sharing network elements and interconnection meet?

A. Prices for unbundled network elements, including those related to advanced services such as line sharing, as well as related interconnection arrangements, must meet the criteria established in the Telecommunications Act of 1996 ("Act"), that prices for unbundled network elements be cost-based and nondiscriminatory. [Pub. L. 104-104, Title VII, § 252(d)(1), Feb. 8, 1996, 110 Stat. 153 (codified in scattered sections of Title 47 of the United States Code) (hereinafter referred to as the "Act").]

By ensuring that prices for the line-sharing elements and functions recover their forward-looking economic costs, but no more, the Commission can best promote the widespread provision of advanced telecommunications services in Florida. The FCC has consistently found that prices based on forward-looking economic cost "send the correct signals for entry, investment, and innovation in the long run." [In the Matter of Federal-State Joint Board on Universal Service, CC Docket 96-45, First Report and Order, rel. May 8, 1997, at ¶¶ 224, 273; *see also FCC Local Competition First Report and Order* at ¶ 672; FCC 99-119, Seventh Report & Order and Thirteenth Order on Reconsideration in CC Docket No. 96-45; Fourth Report & Order in CC Docket No. 96-262 and Further Notice of Proposed Rulemaking, rel. May 28, 1999, at ¶ 50.]

Q. Are there other public policy goals or concerns that are important to consider in setting prices for line-sharing elements and interconnection arrangements?

A. Yes. Covad provides DSL services over both stand-alone and line-shared loops in Florida. The Commission should evaluate proposals for line-sharing-related network elements and interconnection arrangements in light of the public policy imperative to promote advanced services, as stated in Section 706 of the Act. This proceeding offers the Commission an opportunity to secure an important benefit of the Act for all Florida consumers — the delivery of innovative services. Adoption of the Act would have made little sense if Congress did not envision

that a competitive local exchange market would deliver to Florida consumers more innovative, improved services, at better prices, than did the previous single-provider market.

Unless the Commission limits BellSouth to the recovery of efficient levels of costs, BellSouth can seriously harm Covad and substantially slow the deployment of advanced services in Florida. The potential for Covad to accelerate the delivery of competitive benefits to consumers of DSL-based services depends on Covad's ability to obtain access to customers as efficiently as possible on terms and conditions that place Covad on an even competitive footing with BellSouth (or its advanced services affiliates) both now and in the future.

Line sharing is a prime example of this principle. Until the FCC ordered otherwise, incumbents reserved for themselves (or their data affiliates) the opportunity to provide DSL-based services over the same lines that they use to provide voice services. By denying Covad and other competitors the opportunity to line share, incumbents acted on their self-interest and leveraged their control of access to end users into dominance of emerging markets for new telecommunications services such as DSL-based services. Thus, while competitors were forced to purchase a separate, stand-alone loop to provide DSL, BellSouth was aggressively promoting its consumer DSL offering that is provided over a single loop, shared with the voice traffic. The manner in which the Commission resolves issues related to the terms, conditions and prices for

line sharing will substantially affect the ability of new entrants to compete with BellSouth, especially in providing residential and small business customers with DSL-based services.

Q. What steps should the Commission take to facilitate Covad's offering of competitive DSL-based services in Florida?

A. The key steps the Commission must take to facilitate Covad's offering of these services are the following:

First, the Commission should adopt recurring and nonrecurring charges for each line-sharing element and interconnection arrangement that reflect a rigorous application of non-discrimination and forward-looking, efficient economic costing principles. Prices consistent with these principles would assume efficient costs based on the placement of the splitter on the Main Distribution Frame ("MDF") and use of efficient methods, procedures, and materials for line sharing. The Commission should not, for example, allow BellSouth to impose the cost of unnecessary cross connections, test points or bay/frame terminations on its competitors.

Second, the Commission should require BellSouth to offer Covad a full menu of line-sharing elements and interconnection arrangements that reflects all technically feasible alternatives. These alternatives should include providing line sharing over fiber-fed loops.

Third, the Commission should establish non-discriminatory terms and conditions for line sharing. These terms and conditions include requiring BellSouth to provide line sharing in a reasonable interval and to provide Covad with full access to the line shared loops for testing purposes.

III. THE COMMISSION SHOULD BASE RECURRING AND NONRECURRING CHARGES FOR LINE-SHARING ELEMENTS ON THE FORWARD-LOOKING COSTS OF AN EFFICIENT NETWORK DESIGN.

Q. What is line sharing?

A. Line sharing is the use of a single loop to provide both voice and certain high-bandwidth xDSL digital transmission capabilities between a customer's premises and the central office.

Q. What consumer benefits can be derived from line sharing?

A. Consumers — particularly residential and small business customers — can obtain significant benefits from line-sharing arrangements, because all voice and data needs can be met using a single loop. As the FCC noted, the economic characteristics of residential customers are less likely to support the availability of competitively provided advanced services absent access to the high-bandwidth portion of the local loop. [*Line Sharing Order* at ¶ 25.] Line sharing reduces the cost and time required to install or activate additional services into a consumer's location. Second, line sharing conserves limited outside plant resources and

avoids the risk that a lack of facilities will prevent competitors from serving consumer data transmission needs because consumers will not require a second loop to provide full-time data service.

Third, if BellSouth properly costs and prices the network elements that Covad needs for line sharing, consumers will get the lower prices, improved service quality and innovation that result from a more competitive market for broadband services. Proper cost-based pricing of line-sharing elements will enable Covad to compete on an equal footing with BellSouth; consumers will be the ultimate beneficiaries as competition forces both competitors and incumbents to pass along the cost savings attributable to offering DSL-based service over an existing plain old telephone service ("POTS") line.

Covad plans to use line sharing to accelerate its deployment of advanced services to residential end users in Florida. Indeed, Covad is working earnestly with BellSouth to get line-sharing orders successfully processed and provisioned in Florida. The ability to deploy line sharing more broadly to consumers in Florida depends on the Commission establishing reasonable prices, terms and conditions.

Q. Does BellSouth use line sharing to provision its advanced services?

A. Yes. BellSouth has been line sharing voice and DSL-based services ever since it first deployed retail DSL-based service, more than two years ago.

Q. Is Covad on an equal footing with BellSouth with regard to line sharing?

A. Unfortunately, no. The ability to provide both voice and data on a single loop confers a huge competitive advantage on BellSouth, both because provisioning times are greatly reduced and because deployment of a second separate loop to provide DSL-based services is not necessary. BellSouth has enjoyed this competitive advantage for over two years. At the same time, BellSouth required competitors to purchase stand-alone loops for DSL with extreme nonrecurring charges. This competitive advantage makes it extremely difficult for competitors to "catch up." This is why it is so important that the Commission closely scrutinize the terms and conditions under which BellSouth is making line sharing available to Covad.

Q. What are the technically feasible options for Covad to provide DSL in a line-sharing mode in BellSouth's existing network?

A. The technically feasible options for line sharing differ depending on whether BellSouth's existing loop facility is all-copper from the customer premises to the central office ("home-run copper") or copper from the customer premises to a DLC facility and then fiber from the DLC to the central office ("fiber-fed loop").

In the home-run copper scenario, the technically feasible options include the placement of a Covad-owned splitter in Covad's collocation arrangement, the placement of a splitter in a common area of the central office, and the placement of the splitter directly on the MDF. Splitters placed in a common area or on the MDF can be either BellSouth- or Covad-owned.

The MDF-mounted splitter option is the most efficient method for providing line sharing over home-run copper. Thus, under forward-looking economic principles, this arrangement should serve as the basis for determining the costs and prices for tie cables and jumpers to the splitter, even if BellSouth declines to make such a placement option available.

Q. What line-sharing prices should the Commission establish at this time?

A. At this time, we are only asking the Commission to set prices of rate elements for line sharing over home-run copper. However, we request that the Commission order BellSouth to produce proposed terms and costs for line sharing over fiber-fed loops, along with supporting testimony and workpapers, in the near future. The Commission should condition BellSouth's ability to deploy fiber-fed DSL for itself or its affiliates on the successful adoption of terms, conditions and prices that would permit competitors to have nondiscriminatory access to the new technology.

Q. How is line sharing accomplished in a central office?

A. The copper loop enters the central office carrying both the voice and data signals simultaneously, and passes through a distribution frame to the splitter. From the splitter, the voice signal travels back to the distribution frame, where it is routed to the voice switch. The data signal continues from the splitter to the data competitor's collocation equipment, where it is multiplexed by the digital subscriber line access multiplexer ("DSLAM") and connected to a packet

switched network. With an MDF-mounted splitter, simple jumper wires make the connections from the loop to the splitter and from the splitter to the end user's pre-existing connection to BellSouth's voice switch. A wire pair on a tie cable completes the link from the splitter to Covad's collocated arrangement. In some offices, BellSouth may have deployed a "COSMIC" frame. If a COSMIC frame is in place, current technology does not allow the splitter to be placed directly on that frame, so the splitter must be mounted elsewhere, unless BellSouth places cross-connect appearances for the splitters in the miscellaneous panels of the COSMIC modules.

Moreover, on an average basis, the costs for a forward-looking arrangement deploying a "COSMIC" frame should not be significantly higher than those for an MDF-mounted splitter arrangement.

Issue 16: Where Should the Splitters Be Located in the Central Office?

Q. What is your proposal regarding splitter placement in the central office?

A. We propose that the splitter either be placed on the MDF or within a minimal distance (*e.g.*, 25 feet) of the distribution frame. This gives BellSouth added flexibility in situations where BellSouth can show that it would place a COSMIC frame on a forward-looking basis.

Q. Why is your recommended splitter placement important?

A. The most important aspect of this provisioning process is that BellSouth's choices about efficient placement of the splitter can dramatically increase the cost of line sharing through cable costs, cable placement expenses, loading factors, cross connections, and related charges. Our proposal is to place the splitter on the MDF or within 25 feet of the MDF. In the case of the COSMIC frame, the splitter should be placed as close as possible to the frame unless the splitter cross-connect capability has been incorporated into the COSMIC frame modules, as discussed earlier in our testimony. This creates the most efficient network architecture.

Q. How can line sharing most efficiently be accomplished?

A. The most efficient network configuration and practices would locate the splitter on a MDF where the local loop enters the central office. In the case of the COSMIC frame, the splitter should be placed as close as possible to the frame. Early BellSouth line-sharing proposals indicate that BellSouth originally planned to place the splitter on the MDF. Subsequent testimony by BellSouth witnesses indicates that BellSouth later changed its mind regarding splitter placement, although it is not clear why. One explanation given by BellSouth is that placing the splitter on the MDF was not feasible because of BellSouth's use of a bantam test jack in conjunction with the splitter in line-sharing arrangements. The bantam test jack is a feature that BellSouth added to splitters for testing purposes. It was not requested by Covad or other competitors and has not been used by

other incumbents. The bantam test jack is not necessary for line sharing, and Covad should not have to pay for this additional expense.

Q. Please describe how many tie cables and cross connects (jumpers) are required when the splitter is located on the MDF, the most efficient configuration.

A. BellSouth can provide line sharing by placing the splitter on the MDF by installing frame-mountable splitter blocks (each "splitter block" is capable of serving sixteen lines) on the horizontal side of the MDF ("HMDF"). In this installation, the data terminals (the termination point for the data line) on the splitter block would be cabled, or hardwired, directly to the DSLAM in Covad's collocation area.

To deliver a loop for line sharing under this network configuration, BellSouth would need to disconnect the cable pair cross connect that connected the original POTS line from its termination on the vertical side of the MDF ("VMDF") to the HMDF terminal block that corresponds to the voice switch. BellSouth would install a new cross connect from the customer's cable pair on the VMDF to the data/voice terminal on the splitter block. BellSouth would also install a new cross connect between the voice terminal on the splitter block and BellSouth switching equipment terminal block, which is also located on the HMDF.

As we stated above, placement of the splitter on the MDF eliminates unnecessary cabling and other costs associated with splitter placement elsewhere.

With this configuration, BellSouth's forward-looking cost should include only one wire-pair on a tie-cable to Covad's DSLAM, placing two jumper wire cross connects in the MDF and removing one jumper wire cross connect on the MDF.

Although not the most efficient arrangement, locating the splitter near the MDF (within 25 feet) should only increase costs by a small amount.

Q. How does placing the splitter anywhere other than at or nearby the MDF affect line sharing?

A. Splitter placements that are further from the MDF have two major and very detrimental effects. First, placing the splitter away from the MDF requires more tie cable, support structure and pathways to be designed, installed and maintained, which adds to the cost of splitter placement. The further away from the MDF, the longer the tie cables must be, and therefore the more expensive the tie cables are for the competitor. Moreover, with some incumbent-proposed line-sharing configurations, additional cross connects are frequently added, increasing the likelihood of trouble/failure. Additional, unnecessary cross connections add significantly to the overall cost of line sharing, diminishing the economic benefits of this very low-cost method of providing DSL-based service.

Second, the length of the tie cable must be added on to the total length of the loop to determine whether DSL-based services can be offered at all and, if so, at what speed. Most technology to provide ADSL is limited to loops of no more than about 18,000 feet; thus, in marginal cases, a long tie cable inside the central office could preclude Covad from offering line-shared DSL service to a

customer. For example, if BellSouth places the splitter on an entirely different floor from the MDF, it could easily require one thousand feet of tie cable. This means that Covad could only service customers 17,000 feet or less from the central office. Covad wants to deliver DSL to the maximum number of consumers possible with current technology; BellSouth's chosen configuration would, in that case, prohibit it from doing so.

Even where loop length does not preclude line sharing entirely, a long tie cable inside the central office restricts the speed of the service that Covad can provide to its customers and thus lowers the value of that service to the consumer.

Q. Should the Commission use the frame-mounted splitter assumption in developing costs and prices for line sharing?

A. Yes. Under forward-looking economic principles, the Commission should assume that BellSouth places the splitter in an efficient, cost-minimizing location, even if BellSouth declines to make such a placement option available to Covad. BellSouth has unilateral control over the placement of splitters in its central office and can use that control to convey competitive advantages to itself or its affiliates. For example, BellSouth could limit the conditions under which it allows splitter placement at the MDF in such a way that only BellSouth or an affiliate could qualify for this efficient option. The Commission should take steps to prevent BellSouth from exploiting its monopoly control over splitter placement to disadvantage rivals such as Covad.

If BellSouth decides that splitters must be placed in locations that necessitate the use of more tie cables or the placement and removal of more jumpers than would be necessary in an efficient MDF-mounted splitter configuration, BellSouth should be deemed to be the "cost causer" of the increased number of tie cables and jumpers and should bear that cost, especially because Covad bears the risk of service disruptions caused by alternate splitter placement.

The Commission should order prices for cross connections and tie cables that give BellSouth the incentive to choose the efficient splitter placement option.

Q. Have Covad and BellSouth agreed on allowing Covad the option to place its own splitter in its own collocation space?

A. Yes. BellSouth and Covad have agreed that Covad should have this option. BellSouth will make this option available within 60 days of a joint test of that arrangement.

Q. In other cost dockets, has BellSouth proposed to charge competitors for line-sharing splitters, even when Covad buys its own splitter and places it in its own collocation space?

A. Incredibly, yes. Once BellSouth files its cost study, we will examine these proposed charges in detail.

Q. Please describe how many tie cables and cross connects (jumpers) are required when a splitter is placed in Covad's collocation space?

A. When Covad places the splitter within its own physical collocation area, Covad is responsible for cabling the data port on the splitter to Covad's DSL equipment. The voice/data ports and the voice ports on the splitter would be cabled directly to the connecting blocks located on the HMDF.

For this configuration, all it will take to deliver a loop for line sharing is the removal of one cross connect and the installation of two cross connects, just as we described for the installation of a line through a frame-mountable splitter. The only difference between this installation and an installation based on a frame-mountable splitter is that the cross connect wires must be connected to connecting blocks on the HMDF instead of to a splitter block. In addition, this option will require two wire pairs on the tie cable from the MDF to Covad's collocation arrangement (one to carry the combined voice and data signals to Covad's splitter and one to return the voice-only signal from the splitter to the MDF).

Regardless of the tie cables required, however, if BellSouth does not offer the more efficient frame-mounted splitter option, the costs for this collocation option should be capped by the costs of the efficient frame-mounted arrangement.

Q. Please summarize the line-sharing arrangement options for which you will propose prices.

A. The options are as follows:

- *BellSouth-owned splitter mounted on the MDF* — This arrangement involves recurring costs for splitter investment, installation and maintenance, as well as nonrecurring costs for the removal of one jumper and the placement of two jumpers.
- *Covad-owned splitter mounted on the MDF* — This arrangement involves recurring costs for splitter maintenance only (because Covad would be responsible for splitter investment). In addition, it involves nonrecurring costs for the installation of the splitter, the removal of one jumper and the placement of two jumpers.
- *Covad-owned splitter in Covad's collocation area* — This arrangement involves no recurring costs for BellSouth, because the splitter will be owned and maintained by Covad in Covad's own collocation space. It does involve nonrecurring costs for the placement of two jumpers, the removal of one jumper and the placement of two tie cables. (The Commission should only create a separate cost-based price for this option if BellSouth offers the MDF-mounted splitter options, but Covad chooses to locate its splitter in its collocation area. As we noted above, if BellSouth does not offer an efficient MDF-mounted splitter option, then prices for whatever configurations BellSouth does make available should all reflect the more efficient MDF-mounted splitter configuration.)

Issue 24: Are the Rates Proposed by BellSouth for Unbundled Loops and Line Sharing Compliant with TELRIC Pricing?

Q. Has BellSouth provided to Covad a cost study supporting its proposed rates for line sharing in Florida?

A. No. We expect that BellSouth will submit this study with its direct testimony in this docket.

Q. What costs are associated with providing the high-frequency spectrum of a local loop?

A. None. Pursuant to the FCC's *Line Sharing Order* in CC Docket 98-147, incumbent local exchange carriers must make the high-bandwidth portion of the local loop available to new entrants so that they may offer DSL-based services in a line-sharing mode. [*Line Sharing Order* at ¶ 26.] The FCC recommended in the *Line Sharing Order* that no cost should be associated with providing the high-frequency spectrum of the loop. Subsequently, in filings in Georgia, North Carolina and elsewhere BellSouth has supported a zero cost assignment to the high-bandwidth portion of the loop. That is the correct assignment. Therefore, it does not appear that BellSouth and Covad have a dispute concerning that component of the line-sharing cost.

Q. How do you recommend that the Commission set prices for unbundled network elements and interconnection arrangements related to line sharing over home-run copper?

A. We recommend that the Commission adopt the prices presented in Exhibit_____ (ERYK/JPR-3) for the components of line-sharing over home-run copper, with

any necessary adjustments to reflect the final assumptions that the Commission adopted for relevant inputs in the recently decided UNE pricing docket.

Without more information from BellSouth, we are unable to prepare a cost study to address the pricing for line sharing over fiber-fed loops. The Commission should establish a process to determine the appropriate pricing, terms and conditions for fiber-fed DSL-capable loops.

Q. How did you develop the cost basis for the prices shown in Exhibit _____ (ERYK/JPR-3)?

A. Exhibit _____ (ERYK/JPR-4) to this testimony provides the development of the prices presented in Exhibit _____ (ERYK/JPR-3). We have stated the monthly recurring charge for a BellSouth-owned-and-installed splitter per splitter port, based on the capital and operating costs for a 96-line splitter. In calculating the underlying costs, we have used information that we believe to be specific to BellSouth wherever possible, including labor rates. Where we did not have BellSouth-specific inputs, we used proxy values. The splitter investment itself is a publicly available figure from a Bell Atlantic – New York cost study and should be representative of the prices that incumbent local exchange carriers pay for such equipment purchased in quantity. The installation and operation expenses reflect subject matter expert opinion from engineers familiar with this type of equipment, including Mr. Riolo.

To arrive at a proposed price, we considered a range of reasonable options for the depreciation life of a splitter. The proposed price is sufficient to recover

the splitter costs based on a depreciation life as low as five years, with an allowance for the installation and operation expenses endorsed by subject matter engineering experts. In fact, the FCC's currently prescribed life for digital circuit equipment is 11 to 13 years. [*Report and Order in CC Docket No. 98-137, Memorandum Opinion and Order in ASD 98-91, FCC 99-397*, adopted December 17, 1999, released December 30, 1999, Appendix B.] Based on a depreciation life of 11 years (the low end of the FCC-prescribed range), the resulting prices for the splitter would be considerably lower: As shown in Exhibit _____ (ERYK/JPR-4), the resulting splitter price per line derived using an 11-year life is $0.59.

The illustrative prices shown ~~above~~ in Exhibit ERYK/JPR-3 include a Florida-specific common cost markup of 6.24%. [Staff Recommendation in Docket No. 990649-TP at 352.] We have not conducted an independent review of the common cost markup, and recognize that this value (and possibly other Florida-specific inputs that we have used) may change when the Commission issues its final decision in the UNE pricing docket. We recommend that the input values used to calculate line-sharing prices, including the common cost markup, be conformed to the final Commission-adopted values in Docket No. 990649-TP. We will prepare a revised Exhibit showing the recalculated prices using those input values once the Commission's final decision becomes available for our review.

The nonrecurring charges for placing and removing jumpers are stated on a per jumper basis. The underlying costs reflect Mr. Riolo's expert opinion as to the work times required.

Q. How do you propose that the jumper and tie-cable prices be applied?

A. Regardless of the network configuration that BellSouth chooses for the placement of splitters, the prices that BellSouth charges Covad for jumper placement/removal and tie cables should reflect an efficient, cost-minimizing configuration, subject to the constraint that the proposed configuration is achievable. This principle applies whether BellSouth, one of its affiliates, or a competitor owns the splitter.

BellSouth could choose to place splitters at or near its MDF. In Mr. Riolo's engineering judgment, this scenario is entirely feasible and is the most efficient, lowest cost configuration. Thus, we recommend that the Commission base pricing for jumper placement/removal and tie cables on this best practices scenario, regardless of the actual splitter placement that BellSouth imposes on advanced services competitors.

This pricing rule is consistent with forward-looking economic principles and the outcome that the FCC found presumptively reasonable in its *Line Sharing Order,* in which the FCC established splitter placement within the MDF as the pricing benchmark. The FCC stated that:

> We would expect that the costs of installing cross connects for xDSL services in general would be the same as for cross

connecting loops to the competitive LECs' collocated facilities, particularly where the splitter is located within the incumbent LEC's MDF. Accordingly, we find it reasonable to establish a presumption that, where the splitter is located within the incumbent LECs' MDF, the cost for a cross connect for entire loops and for the high frequency portions of loops should be the same. We would expect the states to examine carefully any assessment of costs for cross connections for xDSL services that are in excess of the costs of connecting loops to a competitive LECs' collocated facilities where the splitter is located within the MDF. If the splitter is not located within the incumbent LEC's MDF, however, then we would expect the states to allow the incumbent LEC to adjust the charge for cross connecting the competitive LEC's xDSL equipment to the incumbent LECs' facilities to reflect any cost differences arising from the different location of the splitter, compared to the MDF. We would expect that this amount would be only minimally higher than for cross connecting a splitter located within the MDF to the competitive LEC's xDSL equipment. [*Line Sharing Order* at ¶ 145.]

Although the FCC allows for the possibility of some increment of cost for splitter placement other than at the MDF, the clear expectation is that other

placements would result in costs "only minimally higher" than the cost of the MDF placement scenario.

Q. In conclusion, what prices do you proposed for each line-sharing-related element you have studied?

A. For the high-frequency portion of the line-shared loop, the cost and price should be zero. For the per-line activation non-recurring, the price should be $11.17 (first) or $8.19 (additional), plus the appropriate tie cable charges (per Covad's Interconnection Agreement with BellSouth). The remaining recurring and nonrecurring charges should be as follows for each line-sharing arrangement:

- *BellSouth-owned splitter mounted on the MDF* — The monthly recurring price should be $0.89 per line. Thus, for the 8-, 24-, 96-line increments Covad and BellSouth have agreed upon, the monthly recurring prices would be $7.12, $21.36, and $85.44, respectively. There are no nonrecurring charges associated with this option other than the per-line activation charge, because splitter installation costs are included in the recurring charge.
- *Covad-owned splitter mounted on the MDF* — The monthly recurring price should be $0.10 per line and the nonrecurring charges should be $0.26 per line or $22.33 per shelf. Thus, for the 8-, 24-, and 96-line increments Covad and BellSouth have agreed upon, the monthly recurring prices would be $0.80, $2.40, and $9.60, and the nonrecurring splitter installation charges would be $2.08, $6.24 and $22.33, respectively.

- *Covad-owned splitter in Covad's collocation area* — There are no monthly recurring charges associated with this arrangement and no nonrecurring charges other than the per-line activation charge.

IV. THE COMMISSION SHOULD ESTABLISH NON-DISCRIMINATORY TERMS AND CONDITIONS FOR LINE SHARING.

Issue 18: What Should the Provisioning Interval Be for the Line Sharing Unbundled Network Element?

Q. How long does it take to provision a line-shared loop?

A. If the splitter is properly installed as described in our testimony, the only physical work required for the provisioning of a line-shared loop is wiring the splitter configuration into the existing service, which involves removing one cross connect on the MDF and replacing it with two new cross connects. This process should easily be accomplished in less than 10 minutes. No additional time or work is necessary. Line sharing does not require any work to be performed outside of the central office, and the existing customer telephone number and cable pair are both reused.

Q. How long, then, should it take BellSouth to fill a loop order for line sharing?

A. It should take BellSouth no more than 24 hours to provision a loop that does not require deconditioning. Given that the physical process required to provision the loop takes only 10 minutes, there is no reason for BellSouth to require more than

24 hours to complete that process. BellSouth became legally obligated to provision line sharing as of June 6, 2000. BellSouth should be making constant improvements in its processes such that it could provision a line-shared loop in 24 hours. Recognizing that this is significantly faster than BellSouth in Florida currently provisions line-shared loops, we propose a "step-down" process to drive the final interval to 24 hours within two months of the Order being issued in this docket. Under this proposal, BellSouth would provision loops first within 3 days (from Day 1 to Day 30 after the Order is issued), then within 2 days (from Day 31 to Day 60) and, finally, within 24 hours, beginning Day 61 after the Order. Five business days is an appropriate interval for provisioning when deconditioning is required. The same provisioning intervals should apply whether the existing loop is being used to provide voice only, or the loop is already supporting both voice and ADSL service from BellSouth and another competitor.

Q. Have any other states adopted the phased-in approach that you advocate for the provisioning intervals for the high-bandwidth portion of the loop?

A. Yes. The Illinois Commerce Commission recognized that, given the very limited work required to provision a line-shared loop for DSL, a phased-in approach to line-sharing intervals was fair. These intervals give the incumbent the proper incentive to drive process improvements that facilitate rapid expansion of line sharing.

Issue 23: Should Covad Have Access to All Points on the Line-Shared Loop?

Q. Should BellSouth be required to provide competitors access to the shared physical loop for testing purposes?

A. Yes. It is essential that the Commission require BellSouth to provide Covad access to the shared physical loop for testing purposes. Where Covad owns the splitter and installs it in its collocation arrangement, clearly Covad is entitled to unencumbered access to that splitter to perform any necessary testing. However, for purposes of conducting testing associated with maintenance and repair, Covad must have direct, physical access to *any* loop containing a high-bandwidth network element at the point where the combined voice and data loop leaves the central office. In order to have such access, Covad must be able to attach test equipment to the line-shared loop's termination on BellSouth's MDF.

BellSouth has agreed in its Line Sharing Interconnection Agreements with Covad to give test access only to the splitters themselves through the bantam test jack. To test its data services, Covad must have direct physical access to the loop at all cross connect points of the splitter at the MDF or the intermediate frame. This level of access is required so that Covad can properly and expeditiously isolate problems on the loop. Either BellSouth or Covad may receive the trouble report from the customer, so each should have equal access to each appearance of the plant items comprising the circuit for test purposes. BellSouth utilizes this same test access to isolate trouble for its own customers.

Covad should be afforded the same opportunity to minimize customer outage and improve customer satisfaction.

V. THE COMMISSION SHOULD REQUIRE BELLSOUTH TO PROVIDE LINE SHARING OVER FIBER AS SOON AS IT IS FEASIBLE AND BEFORE BELLSOUTH ITSELF CAN USE SUCH TECHNOLOGY TO OFFER RETAIL SERVICES.

Q. Must DSL-based services be provided over all-copper loops?

A. No. To date, most DSL-based services have been deployed on loops that are copper end-to-end from the central office to the customer premises. However, DSL technologies are now evolving such that DSL-based services, including line sharing, may be deployed on fiber-fed loops. Such loops consist of copper facilities from the customer's premises to a mid-point equipment location, known as a remote terminal ("RT"), where signals are combined and transmitted over fiber optics from the RT to the central office. The ability to deliver DSL-based services over both all-copper and fiber-fed facilities will enable carriers to provide DSL-based services on a nearly ubiquitous basis and thus achieve greater economies of scope and scale in the delivery of advanced services.

Forward-looking DLC equipment allows carriers to provide DSL-based services over fiber/DLC loops with a suitable array of line cards, in the same manner as ISDN is provided over those facilities. Such DLCs are currently being deployed across the country. Indeed, at least one major incumbent, SBC Communications, Inc. ("SBC"), has determined that it can actually reduce its

costs by substantially accelerating the actual deployment of forward-looking DLC specifically in a manner that supports DSL-based services. SBC has announced that its "Project Pronto" initiative, which is designed to extend the reach of DSL-based services and other broadband services to the substantial majority of SBC end users using currently available DLC technology, will produce that benefit by delivering "annual cost structure improvements ... targeted to reach $1.5 billion by 2004 ... with network improvements paying for themselves on an NPV basis." [*See* SBC Investor Briefing No. 211, "SBC Announces Sweeping Broadband Initiative," October 18, 1999, at 10, which was included as Exhibit _____ (TLM-3) to the Direct and Rebuttal Testimony of Terry L. Murray, July 31, 2000, in FPSC Docket No. 990649-TP.]

Q. Why is this issue of line sharing over fiber of particular importance in Florida?

A. BellSouth has a high percentage of loops — over 40% — that are served over fiber in Florida. [*See* BellSouth's Response to Rhythms' Interrogatory 83, FPSC Docket No. 990649-TP.] To ignore issues related to the provision of DSL over such loops is to close off advanced services competition for a significant number of Floridians and places Covad at a substantial competitive disadvantage.

Q. Would access to line sharing on fiber-fed loops be important even if BellSouth were to offer Covad the alternative of using an all-copper loop

where BellSouth itself deployed the technology to provision line sharing over fiber?

A. Absolutely. Without a requirement for BellSouth to offer Covad line sharing over fiber in every location that BellSouth makes such a capability available to itself or to a BellSouth affiliate, Covad could experience far lower service quality than BellSouth or its affiliate. The copper distribution cable for both Covad's loop and the fiber-fed loop over which BellSouth or its affiliate provided DSL-based services could be the same cable. The signal that BellSouth or its affiliate generated at the RT for the fiber-fed loop would be far more powerful than the signal that Covad generated at the central office for the all-copper loop. Therefore, BellSouth's deployment of DSL over fiber could create the potential for serious electromagnetic interference with Covad's all-copper loop. The telecommunications industry's T1-E1 committee is presently reviewing this problem.

The important conclusion for the Commission to draw from this discussion is that BellSouth should not be permitted to deploy DSL over fiber unless and until it also permits Covad to obtain line sharing over fiber-fed loops. Any other solution would discriminate unfairly against Covad, in violation of the FCC's unbundling rules, which would permit the offering of spare copper as an alternative only if the competitor could use the spare copper to provide the same level of quality advanced services to its customer as BellSouth can provide to itself using DSL over fiber. [*Joint Application by SBC Communications Inc.,*

Southwestern Bell Tel. Co., and Southwestern Bell Communications Services, Inc., d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma, Memorandum Opinion and Order, FCC 01-29, CC Docket No. 00-217, at fn. 741 (rel. Jan. 22, 2001), citing to *UNE Remand Order*, 15 FCC Rcd at 3838-39.]

Q. Does BellSouth intend to provide its own broadband services and unbundled loops over fiber/DLC systems?

A. Yes. BellSouth admitted in the Commission's recent Investigation into Pricing of Unbundled Network Elements (Docket No. 990649-TP) that it is currently testing DLC systems for this purpose and that they will be available in the near future. [BellSouth's Response to Rhythms' Interrogatories 78-81, FPSC Docket No. 990649-TP.] BellSouth's "Loop Technology Deployment Directives" and "ADSL Planning Directives" provided in that same proceeding [RL: 98-09-019BT, December 8, 1998, provided in response to Rhythms' Request for Production of Documents 32, FPSC Docket No. 990649-TP, and RL:00-01-021BT, September 14, 2000 "ADSL Planning Directives," provided in response to AT&T's Request for Production of Documents 62, FPSC Docket No. 990649-TP, respectively] provide further evidence along these lines. *See* the Direct and Rebuttal Testimony of Joseph P. Riolo, FPSC Docket No. 990649-TP, July 31, 2000, at 55-58, for specific quotes.

Q. If BellSouth does not today deploy in Florida the full DLC capability necessary to offer line sharing over fiber-fed loops, should the Commission defer action on this issue until BellSouth does deploy such capability?

A. No. The Commission must begin to investigate these issues *before* BellSouth or any future BellSouth data affiliate begins to deploy fiber-based DSL service. While BellSouth perfects its delivery of DSL over fiber-fed loops, competitors will be locked out of those markets and left behind. Thus, the Commission will need to commence its investigation of prices, terms and conditions for line sharing over fiber well in advance of any BellSouth deployment of that technology on behalf of itself or its affiliates. Otherwise, BellSouth will have the market entirely to itself for a significant period of time. This is a crucial advantage given the high proportion of fiber/DLC loops in BellSouth's current network. Any delay will be severely detrimental to competition.

In its recent analysis in Docket No. 990649, the Commission staff noted that:

> ...staff believes BST is obligated, if technically feasible, to provide hybrid copper/fiber xDSL-capable loops to Data ALECs. For this reason, staff recommends that BST be required to submit a cost study for hybrid copper/fiber xDSL-capable loops within 120 days from the order in this proceeding. [Staff Recommendation in Docket No. 990649-TP at 86.]

We propose that this cost study deal not only with stand-alone DSL-capable loops, but also line sharing for hybrid copper/fiber loops. We recommend that the Commission prohibit BellSouth or its affiliates from providing DSL-based services over fiber facilities until BellSouth has set forth terms, conditions and prices that would allow unaffiliated competitors access to that capability for both stand-alone and line-shared loops and parties have had an opportunity to litigate the propriety of the BellSouth proposals. The Commission should not allow BellSouth to take advantage of any current uncertainty concerning the exact nature of the company's plans for DSL over fiber to provide itself or an affiliate a head start in marketing fiber-fed DSL-based services in the future.

Q. Have any state commissions recognized the importance of imposing such a requirement?

A. Yes. A growing number of state regulatory commissions have recognized the importance of ensuring that incumbents such as BellSouth cannot use the deployment of new technology that permits DSL (including line sharing) over fiber as a means to foreclose competition for advanced services. For example, the Illinois Commerce Commission recently found that:

> If this Commission does not require Ameritech to provide line-shared loops over Project Pronto DLC when technically feasible, the deployment of competitive advanced services, especially to residential and small business customers, would likely be

diminished since Ameritech would retain monopoly power over a bottleneck facility. This Commission will not allow Project Pronto to be used as a roadblock to competition for advanced services in Illinois. Therefore, the Commission orders Ameritech to provide line sharing to Covad and Rhythms over Project Pronto DLC. [Arbitration Decision, Dockets 00-0312 and 00-0313, August 17, 2000, at 31. Project Pronto is the name that SBC Communications, Inc., has given to its initiative to deploy the technology necessary to offer DSL over fiber/DLC loops.]

Similarly, the Massachusetts Department of Telecommunications and Energy has expressed concern "that many Massachusetts customers may be shut out of the DSL market unless provisions are made to allow for line sharing over fiber-fed loops." Because the Massachusetts Department felt that "further investigation is necessary to determine whether some or all of the plug and play options advocated by CLECs are reasonable or whether the Department should restrict Verizon's tariff offering to one type of deployment such as plug and play," [Order, *Investigation by the Department on its own motion as to the propriety of the rates and charges set for in M.D.T.E. No. 17*, D.T.E. 98-57-Phase III at 80 (Sept. 29, 2000) ("Massachusetts *Order*") at 94-95.] the Department directed Verizon "to file a tariff that would enable CLECs to place or have Verizon place CLEC-purchased line cards in Verizon's DLC electronics at the RT (options 2

and 3 proposed by Covad) (see Covad Brief at 15) and to file a tariff for feeder subloops (see RR-RLI-8)." [Massachusetts *Order* at 95.] The Massachusetts Department ordered Verizon to file such a tariff now to mitigate the unfair competitive advantage that Verizon's data affiliates would enjoy if Verizon did not file such a tariff until after the company had actually deployed the technology that would allow for plug and play. [Massachusetts *Order* at 96.]

Other commissions in the states that Verizon serves have adopted orders that address similar concerns, even though Verizon (unlike SBC) is not yet actively offering DSL over fiber in its service territory. [*See* Public Service Commission of Maryland, Case No. 8842, Phase I, Order No. 76488, October 6, 2000, at 15-16; and New York Public Service Commission, Case 00-C-0127, Opinion No. 00-12, issued and effective, October 31,2000, at 25-27.]

Q. Is there a regulatory precedent for requiring incumbents to provide access both to stand-alone unbundled DSL-capable loops and line-sharing arrangements over loops with fiber feeder at prices based on forward-looking, economic cost?

A. Yes. The FCC has stated this unbundling requirement repeatedly with respect to both stand-alone DSL-capable loops and line-sharing arrangements over loops with fiber feeder. For example, in its *Line Sharing Order*, the FCC explained that:

> In the *Local Competition Third Report and Order,* we found that lack of access to subloop elements would preclude competitors

from offering some broadband services to a significant market segment. Accordingly, we concluded that incumbent LECs must provide unbundled access to subloops, wherever technically feasible. [*Line Sharing Order* at ¶ 89, footnote omitted.

and further stated that:

In the *Local Competition Third Report and Order*, we specifically noted that requesting carriers are functionally precluded from deploying xDSL services where incumbent carriers have deployed DLC systems unless the requesting carrier can otherwise obtain access to the customer's copper loop before the traffic is multiplexed at the incumbent's remote terminal. [*Id.* at ¶ 90.]

After revisiting its prior requirements, the FCC concluded that "incumbent LECs are required to unbundle the high frequency portion of the local loop even where the incumbent LEC's voice customer is served by DLC facilities." [*Id.* at ¶ 91.]

Hence, the FCC requires that BellSouth provide unbundled access to line sharing over fiber-fed loops at all points. The most efficient means of obtaining that access is for competitors to be able to integrate those elements with DSLAM and splitter functionality in an efficient, plug-and-play arrangement (as the service was designed to be offered).

Q. Does that conclude your direct testimony at this time?

A. Yes, it does.

JOINT REBUTTAL TESTIMONY OF

ELIZABETH R. Y. KIENTZLE AND JOSEPH P. RIOLO

ON BEHALF OF

COVAD COMMUNICATIONS COMPANY

I. INTRODUCTION AND SUMMARY

Q. What is the purpose of your testimony?

A. DIECA Communications, Inc. d/b/a Covad Communications Company ("Covad") has asked us to respond to the testimony and cost studies that BellSouth Telecommunications, Inc. ("BellSouth") filed with the Florida Public Service Commission on April 23, 2001. In doing so, we will specifically address arbitration issues 16, 18, 23 and 24 (with respect to line-sharing costs only).

Q. Ms. Kientzle, please state your name, title and business address.

A. My name is Elizabeth R. Y. Kientzle. I am an independent consultant. My business address is 672 Jean Street, Oakland, CA 94610.

Q. Ms. Kientzle, have you previously filed testimony in this proceeding?

A. Yes. I filed joint direct testimony with Mr. Riolo on April 23, 2001. Exhibit _____ (ERYK/JPR-1) to that testimony describes my qualifications and relevant experience.

Q. Mr. Riolo, please state your name, title and business address.

A. My name is Joseph P. Riolo. I am an independent telecommunications consultant. My business address is 102 Roosevelt Drive, East Norwich, NY 11732.

Q. Mr. Riolo, have you previously filed testimony in this proceeding?

A. Yes. I filed joint direct testimony with Ms. Kientzle on April 23, 2001. Exhibit _____ (ERYK/JPR-2) to that testimony describes my qualifications and relevant experience.

Q. What role did each witness play in the preparation of this testimony?

A. Although both of us have reviewed and support this testimony in its entirety, each of us assumed primary responsibility for specific segments of testimony. As with our direct testimony, we each rely on the facts and analyses developed by the other in his or her areas of primary responsibility. Specifically:

- Ms. Kientzle is primarily responsible for the costing and pricing issues.
- Mr. Riolo is primarily responsible for technical and engineering issues, as well as terms and conditions.

Q. Please summarize the major points that you address in your joint rebuttal testimony.

A. Our joint rebuttal testimony identifies numerous flaws in BellSouth's direct testimony concerning costs and prices for line-sharing elements. The following summary highlights some of the most significant flaws that we have identified and describes our proposed solutions.

Issue 24 – Line-Sharing Prices

BellSouth's proposed monthly recurring charges for splitters and its nonrecurring charges for line-sharing-related elements are anti-competitive because they are based on costs that far exceed the forward-looking costs associated with efficient line-sharing arrangements. In short, BellSouth has inflated the material costs of splitters and related equipment, added unnecessary and costly testing shelves, vastly overstated the costs of installation, and added potentially duplicative costs. The inadequate documentation of BellSouth's nonrecurring cost study often precludes an analysis of the validity of its input assumptions. It is clear, however, that BellSouth has included unnecessary tasks and inflated task times. Incredibly, BellSouth has even proposed to apply nonrecurring charges for its competitor-owned splitter option, despite the fact that, under this option, Covad would own, install and maintain the splitter in its own collocation space.

The Commission should give little credence to BellSouth's unsupported cost estimates. Instead, the Commission should adopt the prices for each of these elements that we proposed in our direct testimony. Those

prices reflect Mr. Riolo's expert opinion (and the FCC's presumptions) concerning efficient practices and the task times that would result from deploying those practices.

Issue 16 – Splitter Location

Splitters should be located on or near the Main Distribution Frame ("MDF"). When contending that frame-mounted configurations were less efficient, BellSouth failed to account for the variety of resources that a remotely located splitter rack utilizes. Splitter placements that are further from the MDF add significantly to the cost of splitter placement, while potentially increasing the likelihood of trouble/failure. Furthermore, the increased length of the tie cable for remote locations could preclude Covad from providing line sharing to some customers.

Issue 18 – Line-Sharing Intervals

Contrary to BellSouth's contentions, line-sharing orders are simple, pertain to an existing service and can be processed on a fully mechanized or "flow though" basis without any manual intervention. The physical process to provision the loop only takes a few moments to complete. There is no reason that BellSouth should require more than 24 hours to complete that process.

Issue 23 – Test Access

Covad must have direct physical access to the loop at each point of connection so that Covad can properly and expeditiously isolate problems on the loop. Essentially, Covad is asking for the same access BellSouth has to the loop in the central office, only when the loop is carrying both data and

voice traffic. If the Commission nonetheless allows BellSouth to deny Covad such access, then the Commission should require BellSouth to respond to trouble reports within four hours on line shared lines.

II. THE COMMISSION SHOULD REJECT BELLSOUTH'S ANALYSIS OF COSTS FOR LINE SHARING AS EXCESSIVE AND NON-FORWARD-LOOKING.

Issue 24: Are the Rates Proposed by BellSouth for Unbundled Loops and Line Sharing Compliant with TELRIC Pricing?

Q. What prices does BellSouth seek to impose on competitors for line-sharing arrangements?

A. BellSouth has proposed a series of charges specific to line-sharing arrangements, most of which relate to the splitter. These include the following:

- J.4.1 – Splitter (BellSouth-Owned) per 96-line capacity (recurring and nonrecurring);
- J.4.2 – Splitter (BellSouth-Owned) per 24-line capacity (recurring and nonrecurring);
- J.4.3 – Splitter per line activation (recurring and nonrecurring);
- J.4.4 – Splitter per subsequent activity per rearrangement (nonrecurring);
- J.4.6 – Splitter (Competitor-Owned) (nonrecurring);

- J.4.7 – Splitter (Competitor-Owned) per occurrence of each group of 24 lines (nonrecurring);

Apparently, BellSouth also intends to apply an additional "service order" charge (the "N" elements) to each order. [*See* BellSouth cost study documentation (provided as Exhibit WBS-1), page stamped 000050.] In addition, BellSouth has proposed disconnect charges that would apply to each of the elements listed above.

Q. Are the line-sharing prices that BellSouth has proposed in this proceeding reasonable?

A. No. In short, BellSouth has inflated the material costs of splitters and related equipment, added unnecessary and costly testing shelves, vastly overstated the costs of installation, added potentially duplicative costs, and loaded nonrecurring costs with unnecessary and unsupported tasks. We detail in the sections below BellSouth's numerous incorrect assumptions and suggest adjustments to compensate for the study's more obvious flaws.

Exhibit _____ (ERYK/JPR-5) provides a comparison of our proposed line-sharing prices, BellSouth's proposed prices, and BellSouth's prices adjusted as detailed in this section.

A. Recurring Charges.

1. BellSouth-Owned Splitters (Elements J.4.1 and J.4.2).

Q. Does BellSouth's study reflect the most efficient, least-cost approach to providing splitters?

A. No. As we noted in our direct testimony, the most efficient arrangement for line sharing would be to implement frame-mounted splitters (or to mount splitters within 25 feet of the frame) and to wire connections from Covad's collocation cage directly to those splitters. Any other arrangement adds unnecessary costs, for which BellSouth must bear responsibility as the cost causer.

BellSouth has assumed a less efficient rack-mounted splitter configuration. (We discuss the issue of splitter placement further in Section III below.) Furthermore, BellSouth's own documentation shows that it has overstated the recurring costs for BellSouth-owned splitters. The analysis that we present below attempts to correct exaggerations in BellSouth's cost study based on BellSouth's own proposal, should the Commission choose to work with BellSouth's analysis. Hence, the corrected results we report herein are conservatively high relative to the costs that BellSouth could achieve if it fully implemented the efficient practices that we assumed in developing the cost basis for the prices that we proposed in our direct testimony. To adopt prices that are consistent with a forward-looking, efficient cost-based methodology,

the Commission should instead rely on the prices recommended in our direct testimony, also presented in Exhibit _____ (ERYK/JPR-5) to this testimony.

Q. Please describe how BellSouth developed its reported monthly price for a 96-line capacity splitter.

A. BellSouth has proposed a monthly price of $201.46 for a BellSouth-owned 96-line splitter (element J.4.1). BellSouth's cost analysis for this element begins by estimating the material investment required for three different categories of equipment: 1) a composite of splitter and connected splitter equipment described as "Shelf, Test Eqpt, Plug-Ins & Cabling"; 2) distribution frame space and connecting block equipment; and 3) the bay or rack that houses the splitter shelves. BellSouth develops installed equipment investments by applying several factors to each material investment. The "Material" and "Hardwire" factors and a "Supporting Equipment and/or Power Loading" factor significantly affect splitter investments. BellSouth calculates the final total investment required for a 96-line splitter using factors to estimate associated land investment and building investment.

BellSouth's total reported investment for a single 96-line capacity splitter, $10,011.11, breaks down roughly as follows: 1) 77% for splitters and the related "Shelf, Test Eqpt, Plug-Ins & Cabling"; 2) 12% for land and building investment; 3) 7% for distribution frame space and associated connecting blocks; and 4) 5% for the bay or frame that holds the splitter shelves.

BellSouth then applies a shared cost factor and adds receipts tax and common cost factors to convert the installed investment amount into a monthly element price.

Q. Is BellSouth's presentation of splitter costs sufficiently documented to permit a definitive analysis of the reasonableness of its proposed price?

A. No. BellSouth did not supply complete supporting documentation or detail of its aggregate $4,859 material cost for "Line Sharing Splitter (Shelf, Test Eqpt, Plug-Ins & Cabling)" in its submission. Nonetheless, we were able to piece together a basic understanding of the basis for that investment amount using various BellSouth discovery responses. BellSouth's total material costs in this category break down as: ***BEGIN BELLSOUTH PROPRIETARY

END PROPRIETARY*** [BellSouth's Response to Sprint's First Request for Production of Documents, Item No. 1, Attachment No. 1, Tennessee Regulatory Authority Docket No. 00-00544, also requested in this proceeding as Covad's Second Request for Production of Documents, Item No. 34.]

Q. Are BellSouth's cost estimates for this element reasonable?

A. No. BellSouth's reported base cost of an equipped splitter shelf does not appear unreasonable. However, BellSouth then loads on unnecessary, inflated and duplicative costs.

First, BellSouth's approach to providing testing capability seems excessively costly. BellSouth has assumed that it will install a costly shelf of manual test access jacks ("bantam jacks") to allow Covad to test the high frequency portion of the loop. BellSouth estimates that its chosen testing equipment requires an additional ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** [*Id.*] in material costs per 96-line splitter arrangement. BellSouth's approach also triggers additional engineering and installation costs.

The incremental investment that BellSouth would incur to obtain a splitter with test point functionality built directly into the splitter cards is likely to be much lower. In fact, BellSouth's own documentation indicates that it could purchase (from its current vendor) splitter line cards with built-in test access for only ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** 2.3% more than the splitters without test access. [BellSouth's Response to Covad's First Request for Production of Documents, Item No. 32 ("POD 32").] Hence, at the material investment level alone, BellSouth's testing arrangement costs roughly ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** more than necessary. The sizable increment in investment calls into question the efficiency of the testing arrangement that BellSouth has chosen.

At least one other incumbent local exchange carrier has chosen cards with built-in test access. SBC affiliate Ameritech stated, in Docket Nos. 00-

0312 and 00-0313 before the Illinois Commerce Commission, that it now uses a new model of splitter that includes test point functionality built directly into the splitter card. [Covad/Rhythms Arbitration, Illinois Commerce Commission, Docket Nos. 00-0312 and 00-0313, Hearing Tr. (Smallwood) at 345 and 284.] This increased investment in the splitter equipment itself was more than offset by eliminating the need to purchase, engineer and wire in a separate test point. Inclusion of test point capability in the splitter card also eliminates the additional frame space required for the separate testing jack.

Second, based on a Tennessee discovery response, BellSouth's assumed ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** cable investment appears to reflect the assumption of "three 100 pair cables for an average distance of 150 feet." [BellSouth's Response to Covad's First Interrogatories, Item No. 15, Tennessee Regulatory Authority Docket No. 00-00544 (*see* Exhibit _____ (ERYK/JPR-6)).] The 150-foot assumption is excessively long for a typically sized central office. Covad has proposed that the splitter be placed on or near the Main Distribution Frame ("MDF"). Placing the splitter on or within 25 feet of the MDF decreases the length of cable needed significantly. Indeed, BellSouth's own analysis notes that it assumes ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** [BellSouth's Response to Covad's POD 32.] BellSouth should have used a typical, or average, cable length in its cost study, rather than the maximum length. ***BEGIN BELLSOUTH

PROPRIETARY

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Third, without providing any support, BellSouth uses ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** as its input for the bay shelf material. Other BellSouth internal analysis suggests that this material actually costs only ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** [*Id.*]

The corrections that we have just discussed, in combination, reduce BellSouth's reported material investment from $4,859 to $3,110 or by 36 percent.

Q. Has BellSouth inflated other material investment inputs?

A. Yes. BellSouth's analysis appears to include at least four other significant errors that inflate its reported material investment. First, although BellSouth provided very little backup for its frame investment, a one-page supporting document for its distributing frame material cost input reveals that BellSouth's actual material cost for the frame is ***BEGIN BELLSOUTH PROPRIETARY

END PROPRIETARY* [*Id.*] Therefore, it appears

that BellSouth's initial "material" only study input is already marked up to include minor/miscellaneous material. BellSouth, however, applies an additional generic "material" cost factor to that amount. Hence, BellSouth is potentially double-recovering the same material costs.

Second, BellSouth's study develops splitter bay costs based on the assumption that a complete bay "has a capacity for 8 splitters [96-line splitter shelves] with each having a corresponding test shelf." [BellSouth's Response to Sprint's First Set of Interrogatories, Item No. 5, Tennessee Regulatory Authority Docket No. 00-00544 (*see* Exhibit _____ (ERYK/JPR-6)).] As we discussed above, however, wiring in additional test shelves is not part of a reasonably efficient design and is not necessary to provide test access to the splitter. Moreover, the capacity of a bay is significantly more than eight splitter shelves. As BellSouth's own documentation indicates, the ***BEGIN BELLSOUTH PROPRIETARY

END PROPRIETARY*** [BellSouth's Response to Covad's POD 32.] Hence, the Commission should increase the number of splitter shelves per bay in BellSouth's analysis to the Siecor-recommended capacity. This change reduces the splitter bay costs by ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY***

Third, BellSouth's calculation of connecting block investments also appears to overstate costs. (This discussion pertains only to BellSouth's assumed rack-mounted splitter arrangement. We do not agree that rack mounting is the most efficient arrangement overall.) BellSouth's connecting

block investment assumes that a 96-line rack-mounted splitter arrangement requires four ***BEGIN BELLSOUTH PROPRIETARY

END PROPRIETARY*** That assumption contradicts BellSouth's estimate of the frame capacity required for the 96-line rack-mounted splitter arrangements, a BellSouth own, very specific, depiction of and schematic for the connecting blocks that it planned to deploy and another BellSouth internal cost estimate. [*See* BellSouth's Response to New Entrant's Second Data Request, April 27, 2000, Item No. 4, Attachment A, North Carolina Utilities Commission, Docket No. P-100, Sub 133d (*see* Exhibit _____ (ERYK/JPR-6)), and BellSouth's Response to Covad's POD 32 .] BellSouth's Response to Covad's POD 32 provides an analysis that assumes ***BEGIN BELLSOUTH PROPRIETARY

END PROPRIETARY*** These other sources suggested that BellSouth would only use three connecting blocks. Only three blocks are necessary to implement rack-mounted splitter arrangements. Thus, BellSouth's current assumption of four connecting blocks is not the most efficient usage of connecting blocks for rack-mounted splitters. The Commission should therefore also correct BellSouth's overstatement of connecting block materials.

Fourth, BellSouth has further inflated frame costs by assigning frame costs to line-sharing lines assuming three terminations on the frame, perhaps due to its faulty assumption of four connecting blocks. This line-sharing

arrangement requires three terminations on the frame, but all three terminations should *not* be charged to line sharing. One of those terminations is required for the existing POTS line and its share of the frame costs are already assigned to the POTS line. BellSouth should have assigned frame costs to line sharing based on the *additional* terminations needed to accomplish line sharing, *i.e.*, two terminations. In charging line sharing for three terminations, BellSouth is either overstating the number of terminations necessary or double-recovering a portion of the frame costs.

Q. Apart from the apparent cost-inflating effect of BellSouth's incorrect material investment inputs, does the remainder of BellSouth's methodology produce reasonably accurate splitter costs?

A. No. BellSouth's approach inflates the cost that BellSouth will incur to install and make ready splitter shelves in several ways. The most significant of these flaws appear to be that BellSouth's application of materials and installation factors produces unreasonable results and that BellSouth's land and buildings and power factors are inappropriate for the splitter element.

Q. Why is BellSouth's application of materials and installation factors unreasonable?

A. The generic materials and installation factors that BellSouth applies to splitter investments were developed for equipment that is not reasonably analogous to splitter arrangements. Those factors, as BellSouth's own analysis suggests, produce results that are entirely unreasonable and that significantly overstate

the cost that BellSouth might reasonably incur to establish a splitter bay and install splitter shelves in that bay. Overall, BellSouth's application of "Material" and "Hardwire" factors to develop installed investments inflate BellSouth's reported investment by $2,734.34 for "Line Sharing Splitter (Shelf, Test Eqpt, Plug-Ins & Cabling)," by $279.00 for the splitter bay, and by $148.46 for the connecting block and distribution frame. In total, therefore, BellSouth assumed an additional $3,161.80 per 96-line arrangement for engineering, installation and miscellaneous materials (over and above the material costs of the splitter, bay and frame themselves).

In significant part, BellSouth's study misestimates line-sharing-related installation costs because it assumes that the splitter bay and splitter can reasonably be assigned historic "in-plant" factors from its 257C, "Digital Circuit – Pair Gain," equipment account. Unlike pair gain systems, however, splitters and splitter shelves are simple and passive devices. Splitters have no moving parts and are nothing more than a shelf into which splitter line cards are placed and cabling is attached. Thus, splitters bear little in common with sophisticated electronics equipment such as pair gain systems. It is the inappropriate application of the pair gain system factors that directly drives BellSouth's estimates that it will incur $279.00 in expense to place the splitter bay and a whopping $2,734.34 to place the splitter and shelves. Establishing an equipment bay is not "rocket science" and should require only a few hours labor. Installing new splitters, including all the necessary cabling, shelf installation, and placing line cards can likewise be accomplished in but a few

hours. Installing splitter shelves requires practically no additional materials support.

Fortunately, BellSouth appears to have also supplied a direct estimate of the engineering and installation costs required for splitter installations. Specifically, BellSouth analysis indicates that it requires ***BEGIN BELLSOUTH PROPRIETARY

END PROPRIETARY*** [BellSouth's Response to Covad's POD 32 .] This equates to only about ***BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY*** per 96-line splitter arrangement, in stark contrast to the more than $3,000 assumed in BellSouth's study. Although we believe that even this estimate substantially overstates a reasonably efficient cost for placing a splitter arrangement (*i.e.*, for minor material, engineering, installation, *etc.),* we propose using this information from BellSouth's direct estimate as a compromise replacement for BellSouth's use of substantially inaccurate "in-plant" factors.

Q. Why is BellSouth's use of a land and buildings factor inappropriate?

A. BellSouth adds a 0.0078 land and a 0.1267 building investment factor to all of the splitter-related investments discussed above. According to BellSouth witness Mr. Thomas G. Williams' direct testimony and BellSouth's discovery responses, however, the splitter is in a common area. [Williams Direct at 3 and BellSouth's Response to Covad's First Interrogatories, Item No. 16,

Tennessee Regulatory Authority Docket No. 00-00544 (*see* Exhibit _____ (ERYK/JPR-6)).] Competitors are presumably already paying for common area space as part of their collocation charges. (Again, we do not agree that placement in the common area is the most efficient arrangement. This discussion pertains only to BellSouth's proposed configuration.) Therefore, BellSouth's addition of land and building investments based on splitter-related investments would double-recover the cost of land and building investment that competitors are already paying for through collocation charges.

Even if it were not a case of absolute double-recovery, BellSouth's methodology produces results that are unreasonable. The total land and building investment that BellSouth assigns to a 96-line splitter shelf is $1,186.16. Given BellSouth's assumption that its splitter bays will hold eight 96-line splitters, BellSouth would assign $9,489.28 in ~~annual~~ total investment ($1,186.16 * 8) or about ~~$790.78~~ $180.43 per month per bay. At most, each bay might consume 10 square feet of office space. Given this assumption, BellSouth's methodology assigns building cost to splitter bays at more than ~~*$79 per*~~ $18 *square foot per month.* That result is, on its face, unreasonable.

To eliminate the apparent double-counting of costs, we recommend that the Commission eliminate the application of the land and buildings factors from BellSouth's splitter cost calculation.

Q. Why is BellSouth's use of a power factor inappropriate?

A. BellSouth applied a "Supporting Equipment &/or Power" loading to all splitter-related investments in its study. Splitters, splitter shelves, *etc.* are passive devices and require no power whatever. BellSouth notes in its Response to Covad's POD 32, that ***** BEGIN BELLSOUTH PROPRIETARY END PROPRIETARY***** Hence, the application of a power factor to these elements violates cost causation and would saddle competitors with recurring power costs for power that they do not consume. Fortunately, BellSouth's workpapers indicate that this factor is composed of distinct components for power and other equipment. [*See* BellSouth cost study, COMPWR98.xls, Summary worksheet.] Therefore, the Commission could simply remove the power component of this factor. For the block and frame investments, the factor without power is 1.0232 as opposed to the 1.1011 factor including power. For the splitter bay and other splitter-related investments, the factor without power is 1.0162 as opposed to the 1.0251 factor including power.

Q. Do all of the problems you have just described apply to BellSouth's calculation for 24-line splitters as well?

A. Yes. Although the preceding discussion addressed BellSouth's calculation of the 96-line capacity splitter installation (element J.4.1), BellSouth used the same calculations and methodology to develop its price for the 24-line

capacity splitter as well (element J.4.2). Hence, all of the issues that we raised above apply to that element as well.

Q. Based on your analysis, how could the Commission correct BellSouth's reported recurring splitter cost?

A. As we noted above, BellSouth has not presented detail sufficient to allow a complete understanding of what is included in its study. Hence, we cannot adjust BellSouth's analysis with any reasonable degree of accuracy. Should the Commission nonetheless wish to make use of BellSouth's analysis, we recommend the following adjustments to compensate for the study's more obvious flaws. The step-by-step adjustment amounts reported herein are dependent on the order in which the various corrections are applied, due to the application of factors. If the corrections are performed in a different sequence, the relative change at each step can vary substantially. The final cumulative result of all charges would not, however, be affected.

- Adjust BellSouth's claimed investment for "Line Sharing Splitter (Shelf, Test Eqpt, Plug-Ins & Cabling)" to a reasonable level. This adjustment reduces BellSouth's reported monthly price for the 96-line splitter from $201.46 to about $138.27 and for the 24-line splitter from $50.37 to about $34.57.
- Correct BellSouth's estimate of the number of splitter shelves per bay. This adjustment reduces BellSouth's reported monthly price for the

96-line splitter to about $133.63 and for the 24-line splitter to about $33.41.

- Correct BellSouth's assumptions regarding the number of connection blocks and frame terminations. These adjustments reduce BellSouth's reported monthly price for the 96-line splitter to about $129.31 and for the 24-line splitter to about $32.33.
- Replace BellSouth's inaccurate use of generic "in-plant" factors, such as the "Digital Circuit Equipment – Pair Gain" factor, with BellSouth's own more reasonable direct estimates of the cost that BellSouth will actually incur to place splitter arrangements. This adjustment reduces BellSouth's reported monthly price for the 96-line splitter to about $100.76 and for the 24-line splitter to about $25.19.
- Eliminate the application of the land and buildings factors from the splitter element. This adjustment reduces BellSouth's reported monthly price for the 96-line splitter to about $90.39 and for the 24-line splitter to about $22.60.
- Remove the power component of the "Supporting Equipment &/or Power" loading. This adjustment reduces BellSouth's reported monthly price for the 96-line splitter to about $89.11 and for the 24-line splitter to about $22.28.

Cumulatively, these estimated corrections reduce BellSouth's recurring price for a 96-line splitter from $201.46 to $89.11, a 56% decrease. That result is substantially closer to the $0.89 per line or $85.44 per 96 lines

recommended in our direct testimony. With the same corrections, BellSouth's recurring price for a 24-line splitter drops from $50.37 to $22.28.

Q. Are the adjustments you have just suggested an aggressive or complete set of the corrections that the Commission should implement before making any use of the BellSouth analysis?

A. Not at all. We have focused on addressing the more substantial errors that can be shown with relative economy and that remain within the context of the basic line-sharing arrangement and assumptions in BellSouth's study. Not only does the result not reflect a least-cost, efficient arrangement, our corrections are not even as aggressive as those that some of BellSouth's own analysis would suggest. BellSouth's Response to Covad's POD 32 shows that BellSouth has calculated that it can install *****BEGIN BELLSOUTH PROPRIETARY**

END PROPRIETARY*** Either figure is *lower* than the price proposed in our direct testimony.

2. Recurring Per-Line Activation Costs (Element J.4.3).

Q. What per-line recurring charge is BellSouth proposing in conjunction with line sharing?

A. BellSouth and Covad have agreed on an interim recurring per-line activation charge of $0.61 per month.

B. Nonrecurring Charges.

1. BellSouth-Owned Splitters (Elements J.4.1 and J.4.2)

Q. What is the basis for the nonrecurring charge that BellSouth proposes to impose for implementing either a 24-line or a 96-line capacity splitter arrangement?

A. The following table reproduces *all* of the detail that BellSouth has made available concerning the basis for its proposed $377.72 nonrecurring charge for both 96- and 24-line splitters. [*See* BellSouth cost study, FLLineSh.xls, Input_NRC (also provided as Exhibit WBS-1 at page stamped 000511).]

Table 1

BellSouth Nonrecurring Cost Study Inputs/Source Data for

Elements J.4.1 and J.4.2 – 96- and 24-Line Splitter Installations

Item/Description	Source	Hours
Network	COSMOS / SWITCH	4.00
Engineering	Circuit Capacity Management	3.00
Engineering	Complex Resale Support Group	0.74
Engineering	Complex Resale Support Group	0.67
Total		**8.41**

Q. Is BellSouth's support for its study adequate?

A. No. Indeed, BellSouth's "support" for its proposed $377.72 charge is so inadequate that we cannot determine even generally what activities BellSouth believes should be included in the cost basis for this charge. BellSouth provides no hint, for example, regarding what its "Network" group will supposedly spend 4 hours doing, what its "Engineering" group will spend 3 hours doing that constitutes "Circuit Capacity Management" or what its "Complex Resale Support Group" might require 1.41 additional hours to accomplish. When one recalls that BellSouth seeks to recover the "installed" cost of splitters through its proposed recurring prices (*i.e.*, the nonrecurring charge should not be recovering installation costs), it is hard to fathom why BellSouth imagines this nonrecurring charge to be necessary.

It is likewise impossible to know how BellSouth arrived at the finding that the nonrecurring cost associated with 96-line and 24-line splitter capacity

is identical. Some estimates are rounded (*e.g.*, 4 hours for "Network"), but others reflect apparent precision (*e.g.*, the two decimal place accuracy of the time estimate that BellSouth provides for the two "Complex Resale Support Group" lines and the fact that it has divided that time into two different lines). Therefore, we suspect that BellSouth may have combined multiple methods and sources in this single study. The discrepancy in levels of precision also suggests that, at least in some cases, BellSouth probably has additional study detail that it chose to withhold.

In other proceedings, BellSouth has testified that the "Circuit Capacity Management" and "Network" Groups are "building" a database and assigning circuits to the splitter. Nonetheless, BellSouth offers no direct testimony explaining why any of this work involving order services or inventorying functions cannot and should not be done by fully functional, forward-looking Operations Support Systems ("OSS"). If the unknown tasks that BellSouth reports in its cost study really take as much human intervention as reported here (a wholly unsupported conclusion given the paucity of documentation supplied to buttress these assumptions), it would seem this is an area ripe for electronic system upgrades. Thus, a forward-looking cost for such work would be zero.

Finally, BellSouth's direct testimony is entirely silent on even the most basic questions such as who developed the study inputs and how those inputs were developed. The complete absence of a basis for BellSouth's reported

costs precludes any reasonable understanding of them. This Commission should not adopt such entirely baseless charges.

Q. Were you able to obtain any additional detail concerning the basis for BellSouth's nonrecurring cost assumptions for the splitter?

A. In response to discovery in North Carolina, BellSouth provided a single page with additional description of the activities included in some of its work group level aggregate task times. [*See* BellSouth's Response to New Entrants' Second Data Request, April 27, 2000, Item No. 20, Attachment A, North Carolina Utilities Commission Docket No. P-100, Sub 133d (*see* Exhibit _____ (ERYK/JPR-6)).] However, BellSouth did not provide any information whatsoever for the largest portion of the time – 4 hours for the "COSMOS/Switch" group. And, unfortunately, the limited descriptions that BellSouth did provide are too vague to be of much use.

For example, BellSouth provides a single (one sentence) description of tasks that the "Circuit Capacity Management" group performs. As that same group is included in the nonrecurring cost estimate per splitter installation (element J.4.1) and per line-sharing line ordered (element J.4.3) and BellSouth seems to describe both studies on the same page, it is impossible to know with certainty which activities BellSouth has supposedly included in which nonrecurring cost. Certainly BellSouth's limited description, which suggests that this group orders and keeps an inventory of splitters, seems insufficient to account for either the per-splitter-shelf or the per-line time assigned to this

group. The description of tasks performed by the "Complex Resale Support Group," which at least only appears in the per-shelf nonrecurring cost analysis, appears to be almost entirely unnecessary as this group is described as solely tracking the splitter request before handing it off to the "Circuit Capacity Management" group.

As we discussed in our direct testimony, the function of placing splitters into a central office is a simple one. Moreover, as is correct, BellSouth includes the cost of installing and wiring the splitters in the recurring splitter cost and price. Therefore, we cannot fathom how BellSouth arrived at its conclusion that it will require an additional 8.4 hours of labor per splitter arrangement.

Given BellSouth's complete failure to explain, let alone to substantiate, its reported costs, the Commission should reject BellSouth's proposed nonrecurring price for these elements entirely.

Q. Do you have any other indication that BellSouth's assumed tasks and task times are inappropriate?

A. Yes. Even the sketchy description that BellSouth supplied in North Carolina makes clear that BellSouth has assumed a high degree of manual processing. Such manual processing has no place in any forward-looking cost study — it is even less acceptable given that BellSouth proposes to charge Covad for *automating* line-sharing orders. As Mr. Pate indicates in recent Georgia testimony,

> the Telcordia solution offers electronic processing of Line Sharing service requests allowing flow-through within BellSouth's OSS. This includes the ability to *inventory and assign BellSouth facilities and splitters* ... These capabilities provided by the Telcordia solution translate into reliable, fast, and accurate processing of CLEC Line Sharing service requests. [Pate Direct, Georgia Public Service Commission Docket No. 11900-U, November 13, 2000, at 18, emphasis added (*see* Exhibit _____ (ERYK/JPR-6)).]

Apparently, BellSouth has forgotten to reflect these flow-through processing efficiencies in its nonrecurring cost study. Covad has agreed, on an interim basis, to pay a recurring charge of $0.61 per line-shared line per month to fund OSS upgrades for line-sharing arrangements. Having agreed to pay for the upgrades, Covad is surely entitled to the benefit of those upgrades in the remaining cost study assumptions.

2. Competitor-Owned Splitters (Elements J.4.6 and J.4.7)

Q. Has BellSouth proposed nonrecurring prices for line-sharing splitters, even when Covad buys its own splitter and places it in its own collocation space?

A. Yes. BellSouth has inexplicably proposed to apply two nonrecurring charges for its "CLEC/DLEC Owned Splitter in the Central Office" option. Under

this option, Covad would own, install and maintain the splitter in its own collocation space. Nonetheless, BellSouth proposes to charge $115.29 "per "line splitter order document (LSOD)" (element J.4.6) and $57.72 "per occurrence of 24 lines" (element J.4.7). BellSouth has likewise proposed disconnect charges for these elements.

Q. Do all of the problems you described in the previous section apply to BellSouth's calculation of nonrecurring costs for competitor-owned splitters as well?

A. Yes. Although the preceding discussion addressed BellSouth's calculation of the nonrecurring cost for a BellSouth-owned and -installed splitter (elements J.4.1 and J.4.2), BellSouth used basically the same methodology to develop its nonrecurring price for the "CLEC/DLEC Owned Splitter in the Central Office" (elements J.4.6 and J.4.7). BellSouth does report fewer steps and less work time for the "CLEC/DLEC" splitter arrangement. However, the "Complex Resale Support Group" time that BellSouth includes is identical and the remaining tasks and times that BellSouth's analysis assumes are likewise unexplained.

Q. Do the activities that BellSouth included for the "CLEC/DLEC" option make sense?

A. No. Again, BellSouth has assumed that for the "CLEC/DLEC" option, Covad will own the splitter and will install the splitter in Covad's collocation area. It is curious, therefore, that BellSouth has included such times as, for example,

one hour for "Circuit Capacity Management" in its proposed nonrecurring per splitter cost for this option (element J.4.6). Recall that the only description BellSouth has provided for this group indicates that the cost is for the tasks of ordering and inventorying splitters. It is difficult to imagine why BellSouth believes a competitor should pay BellSouth for any such tasks when *Covad purchases and installs its own splitter in its own collocation area.* It is similarly difficult to understand why the involvement of the "Complex Resale Support Group" would be required for this element, particularly given that this group's main job seems to be handing off the order to the "Circuit Capacity Management" group. BellSouth has assumed 2.4 hours of effort for element J.4.6, all of which seems entirely unnecessary. The Commission should therefore reject the entire cost reflected in element J.4.6.

BellSouth's proposed element J.4.7 is equally mysterious. BellSouth states only that the "[n]onrecurring cost (J.4.7) per occurrence of each group of 24 lines (48 pair) associated with the LSOD also applies." [BellSouth cost study documentation (also provided as Exhibit WBS-1) at Section 6, page 14 (stamped 000050).] Element J.4.7 consists entirely of an assumed 1.5 hours on connection and 0.25 hours at disconnection per 24 lines for the"COSMOS/Switch" group to perform some undefined manual work. Again, BellSouth provided no description of this work effort, let alone supporting documentation. This apparent manual effort to enter records in BellSouth's systems would cost competitors another $57.72 per each 24 lines. This additional, unsubstantiated manual record-keeping charge seems entirely

inconsistent with BellSouth's simultaneous proposal to charge competitors for automation effort. Keep in mind, too, that BellSouth has proposed a separate nonrecurring per-line activation charge. The Commission should reject the entire cost reflected in element J.4.7 until such time as BellSouth provides a compelling reason that the corresponding record-keeping activities are necessary and cannot be automated.

3. Per-Line Activation (Element J.4.3)

Q. What is the basis for the additional nonrecurring charge per initial line that BellSouth proposes to impose on a per-line basis?

A. The following table reproduces *all* of the detail that BellSouth has made available concerning the basis for its proposed $37.02 charge (additional lines on the same order would be $21.20). [*See* BellSouth cost study, FLLineSh.xls, Input_NRC (also provided as Exhibit WBS-1 at page stamped 000511).]

Table 2

BellSouth Nonrecurring Cost Study Inputs/Source Data for

Element J.4.3 – Line Sharing Splitter – per Line Activation

Item/Description	Source	Hours
Engineering	Circuit Capacity Management	0.0833
Engineering (8 min x 35% fallout)	Assignment Facility Inventory Group	0.0467
Connect & Test	Work Management Center	0.0500
Connect & Test	CO Install & Mtce Field - Ckt & Fac	0.4167
LST – Engineering (15 min x 10%)	Circuit Capacity Management	0.0250
LST – Eng (8 min x 35% fallout x 10%)	Assignment Facility Inventory Group	0.0047
LST – Connect & Test (# min x 10%)	CO Install & Mtce Field - Ckt & Fac	0.0550
LST – Connect & Test (60 min x 10%)	Installation & Maintenance	0.1000
LST – Travel (30 min x 10%)	Installation & Maintenance	0.0500
Total		**0.8313**

Q. Is BellSouth's support for its study adequate?

A. No. BellSouth's "support" for its proposed per-line installation charge suffers from the same lack of support as does its proposed per-shelf nonrecurring charge. For example, it is impossible to determine even such basic information as how many cross-connection jumpers BellSouth assumes that it must place and remove or how much time BellSouth assumes each activity will take. Again, BellSouth's failure to detail the basis for its study inputs

deprives Covad of any reasonable opportunity to analyze and respond to BellSouth's results.

Q. Does BellSouth's reported cost appear reasonable?

A. No. Even the summary-level data that BellSouth has provided reveals several substantial flaws in BellSouth's analysis.

First, BellSouth has included two engineering tasks, one of which involves the "Circuit Capacity Management" group. Because line sharing rarely requires any engineering, we fail to understand why this group would need to be involved. We also note that BellSouth's presumption of a 35% fallout rate for manual work to the "Assignment Facility Inventory Group" reflects an unreasonably inefficient level of fallout and is entirely unsupported. Indeed, we question why the Assignment Facility Inventory Group is involved in line-sharing provisioning at all. Because line sharing involves adding on to existing service, the Assignment Facility Inventory Group could only be required to resolve fallout relative to loop assignment if the information in BellSouth's databases regarding its existing retail or wholesale account is in error. Hence, this cost would inappropriately require competitors to fund the cleanup of BellSouth's embedded records. If the supposed assignment error is related to the (recently placed) splitter facilities, the error should typically be returned to the competitor for correction and charges by BellSouth are, once again, inappropriate. Therefore, we recommend the removal of both engineering times.

Second, BellSouth has overstated the central office time necessary to provision a line-sharing arrangement. BellSouth has assumed that it will require 25 minutes to connect and test the line. This process should easily be accomplished in less than 10 minutes on average. Interestingly, in its recent Georgia line sharing cost study, BellSouth assumed only 15 minutes for this task. [*See* BellSouth cost study documentation (Exhibit DDC-1), Georgia Public Service Commission Docket No. 11900-U, November 13, 2000, at page stamped 000349 (*see* Exhibit _____ (ERYK/JPR-6)).] BellSouth has provided no explanation for the increase, nor, in fact, any description of the tasks included. Therefore, we recommend that the Commission use BellSouth's earlier estimate of 15 minutes.

Finally, BellSouth includes five tasks, prefaced with the acronym "LST," that BellSouth apparently claims will occur on 10% of line-sharing orders and that appear to relate to engineering and outside plant work activities. Our best guess (given BellSouth complete lack of description of these tasks and our knowledge that line-sharing orders will not typically require any engineering or outside plant work activities) is BellSouth has assumed that 10% of line-sharing orders will require a "Line and Station Transfer." A Line and Station Transfer occurs when a subscriber's outside plant facility is transferred to a different facility, so as to free up the original facility for use on another service. In this context, a Line and Station Transfer might be required to switch an end user's existing pair, which will not support line sharing for some reason, to a pair that can support line sharing.

BellSouth apparently intends to use Line and Station Transfers as a routine means of supplying its own DSL services. BellSouth's internal company documents state:

*****BEGIN BELLSOUTH PROPRIETARY**

END PROPRIETARY*** [Outside Plant Engineering Methods and Procedures for BellSouth® ADSL Service, 915-800-019PR, at 7, Sept. 30, 1999, which BellSouth provided in response to AT&T's Request to for Production of Documents 62 in Florida Public Service Commission Docket 990649-TP (also requested in this proceeding as Covad's Second Request for Production of documents, Item No. 35).]

The Commission should ensure that BellSouth is treating Line and Station Transfer costs consistently across all of its unbundled network element and retail cost studies and is not proposing a scheme that results in double-recovery of those costs. Line and Station Transfers are a routine part of outside plant maintenance and repair. The ongoing expense for such activity is typically and appropriately treated in cost analysis as a recurring expense. Hence, contrary to BellSouth's proposed treatment for DSL competitors, Line and Station Transfer costs are normally captured as a small portion of the recurring expense that is assigned to all loops. The Commission should disallow Line and Station Transfer costs until such time that BellSouth can demonstrate that: 1) the imposition of Line and Station Transfer costs will not double-recover costs already included in its loop cost analysis; and 2) the treatment of those costs as nonrecurring for DSL competitors is consistent with BellSouth's treatment of those same costs in other instances. At a minimum, the Commission should ensure that BellSouth provides data competitors with line and station transfers on request. Although competitors are already entitled to such transfers — if, as seems likely, the retail customer has paid for them through loop rates — it is doubly important that competitors receive this benefit if BellSouth is allowed to impose additional costs for line and station transfers.

Q. Given this analysis, how could the Commission correct BellSouth's reported costs?

A. As we noted above, BellSouth has not presented detail sufficient to verify how it determined task times for any task in its study — including those that are clearly necessary such as placing cross-connection jumpers. Hence, it is impossible to develop a revised result using the BellSouth data that has any reasonable level of verifiability or certainty. If, however, the Commission chooses to use the BellSouth data, it should, as we discussed above, eliminate the inappropriate engineering tasks, reduce the central office connect time and eliminate "LST" related tasks. With these corrections, BellSouth's study inputs would be as shown in the following table.

Table 3

PARTIALLY CORRECTED

BellSouth Nonrecurring Cost Study Inputs/Source Data for Element J.4.3 – Line Sharing Splitter – per Line Activation

Item/Description	Source	Hours
Connect & Test	Work Management Center	0.0500
Connect & Test	CO Install & Mtce Field - Ckt & Fac	0.2500
Total		**0.3000**

If one applies an estimated labor rate of $40 to these task times, BellSouth's corrected cost becomes $12.00, which is reasonably close to the

$11.17 estimate for placing two jumper and removing one (with the related support tasks) that we proposed in our direct testimony.

4. Per Subsequent Activity Per Line Rearrangement (Element J.4.4.)

Q. What is the basis for the additional nonrecurring charge "per subsequent activity" that BellSouth proposes to impose on a per-line basis?

A. The following table reproduces *all* of the detail that BellSouth has made available concerning the basis for its proposed $32.78 charge (additional lines on the same order would be $16.38). [*See* BellSouth cost study, FLLineSh.xls, Input_NRC (also provided as Exhibit WBS-1 at page stamped 000511).]

Table 4

BellSouth Nonrecurring Cost Study Inputs/Source Data for

Elements J.4.4 – Line Sharing Splitter

Per Subsequent Activity Per Line Rearrangement

Item/Description	Source	Hours
Engineering (8 min x 35% fallout)	Assignment Facility Inventory Group	0.0467
Connect & Test	Work Management Center	0.1000
Connect & Test	CO Install & Mtce Field - Ckt & Fac	0.6167
Total		**0.7633**

Q. Is BellSouth's support for its study adequate?

A. No. Again, BellSouth's has not attempted to explain or support its study inputs and assumptions. For example, it is impossible to determine even such basic information as how many cross-connection jumpers BellSouth assumes that it must place and remove or how much time BellSouth assumes each activity will take.

Q. Does BellSouth's reported cost appear reasonable?

A. No. Once again, BellSouth has increased its assumed central office time from 22 minutes in its recent Georgia line-sharing study [*see* BellSouth cost study documentation (Exhibit DDC-1), Georgia Public Service Commission Docket No. 11900-U, November 13, 2000, at page stamped 000349 (*see* Exhibit _____ (ERYK/JPR-6))] to 37 minutes here, with no explanation. BellSouth also again presumes a 35% fallout rate for manual work to the "Assignment Facility Inventory Group," which reflects an unreasonably inefficient level of fallout and is entirely unsupported.

For these reasons, if the Commission makes any use of BellSouth's unsupported study, it should reduce BellSouth's proposed price by at least 50%.

III. THE COMMISSION SHOULD ESTABLISH EFFICIENT, NON-DISCRIMINATORY CONFIGURATIONS, TERMS AND CONDITIONS FOR LINE SHARING.

Issue 16: Where Should the Splitters Be Located in the Central Office?

Q. BellSouth has proposed locating splitters remotely on a relay rack. Is this the most efficient configuration?

A. No. As we explained in our direct testimony, splitters should be located on or near the MDF. Splitter placements that are further from the MDF add significantly to the cost of splitter placement, while potentially increasing the likelihood of trouble/failure. Furthermore, the increased length of the tie cable for remote locations could preclude Covad from providing line sharing to some customers.

Q. Does BellSouth contend that mounting splitters on the frame (as proposed by Covad) is technically infeasible?

A. No. Mr. Williams admits at page 2 of his direct testimony that "BellSouth recognizes that locating splitters on a central office frame is technically feasible."

Q. On page 3 of his direct testimony, Mr. Williams claims that a frame-mounted splitter arrangement is "inefficient due to the frame space it requires." Is he correct?

A. No. Mr. Williams claim is apparently based in part on the fact that a frame-mounted configuration would require six connecting blocks on the frame, as opposed to the four blocks he claims would be needed for the rack-mounted architecture BellSouth prefers. However, Mr. Williams has failed to account for the variety of resources that a remotely located splitter rack utilizes (*e.g.*, the relay rack/bay, the pathway/ladder racks to hold the cabling, supports for the ladder rack, floor space occupied by the bay and its associated aisle space).

Mr. Williams goes on to explain that the "frame-mounted architecture proposed by Covad would cause BellSouth to prematurely exhaust its frame." [Williams Direct at 3.] However, given the high percentage of loops that are served over fiber in Florida [*see* BellSouth's Response to Rhythms' Interrogatory 83, FPSC Docket No. 990649-TP (see Exhibit _____ (ERYK/JPR-6))], we are puzzled by Mr. Williams' concern. (Fiber loops do not use MDF space.) BellSouth should not have frame congestion problems.

Q. Mr. Williams also notes on page 3 of his direct testimony that "frame-mounted splitters could not accommodate the manual test jacks." Does this render frame-mounted splitters infeasible?

A. No. As we noted in our direct testimony, the manual test jacks to which he refers, the so-called "bantam jacks," were not requested by Covad or other competitors and are not necessary for line sharing. As we discussed in Section II.A.1, BellSouth's chosen approach to providing test access is unnecessarily costly and inefficient. Use of bantam jacks increases costs in numerous ways, by increasing material and installation costs (because they are wired on site), using more space in the central office and introducing an additional potential source of trouble on the line. We do not believe that BellSouth will incur comparable costs for its own line-sharing offering.

Issue 18: What Should the Provisioning Interval Be for the Line Sharing Unbundled Network Element?

Q. What interval has BellSouth proposed for provisioning a line-sharing line?

A. BellSouth has proposed an interval for line-sharing provisioning of three days after the return of the firm order confirmation, with the firm order confirmation being returned no later than the next day for electronic orders and two days for manual orders. [Williams Direct at 6.]

Q. Has BellSouth provided sufficient justification for this proposed interval?

A. No. Mr. Williams indicates that:

> It may be possible to provision line sharing loops is some cases in less than three days if all information flows correctly through all of BellSouth's provisioning systems. However, if orders fall out for manual handling, three days will be required. Therefore, to be sure all parties, including the end user, have appropriate expectations; three days after the return of the firm order confirmation is the appropriate interval. [*Id.*]

Line-sharing orders are simple, pertain to an existing service and can be processed on a fully mechanized or "flow though" basis without any manual intervention. [*See, e.g.*, Pate Direct, Georgia Public Service Commission Docket No. 11900-U, November 13, 2000, at 18 (*see* Exhibit _____ (ERYK/JPR-6)).] Keeping in mind that line sharing by definition uses existing (operational) voice lines, "fall-out" requiring manual assistance should be limited to a very small percentage of orders.

The physical process to provision the loop outlined by Mr. Williams on page 5 of his direct testimony (not all of which we agree is necessary) only takes a few minutes to complete. There is no reason that BellSouth should require more than 24 hours to complete that process.

Issue 23: Should Covad Have Access to All Points on the Line-Shared Loop?

Q. Are BellSouth's fears that allowing Covad access to its frame for testing purposes would be a potential risk to service [Williams Direct at 8] founded?

A. No. BellSouth must realize that it is not only sharing a line with Covad, but also sharing a customer. Covad has an interest in retaining and maintaining the quality of its data service that is equal to BellSouth's interest in maintaining the quality of its voice services. Covad also has a strong interest in maintaining the quality of the voice service. A customer whose voice service becomes degraded or otherwise impaired will soon be looking for another data provider.

Q. Should BellSouth be required to provide competitors access to the shared physical loop for testing purposes?

A. Yes. As we discussed in direct testimony, Covad must have direct physical access to the loop at each point of connection so that Covad can properly and expeditiously isolate problems on the loop. Covad seeks to have access to the loop in the central office only where that loop carries both voice and data services. Covad seeks the same access BellSouth has to isolate and resolve troubles on its customer's loop. Without such test access, Covad's ability to maintain customer satisfaction lies completely within BellSouth's hands.

If the Commission nonetheless allows BellSouth to deny Covad such access, then the Commission should require BellSouth to respond to trouble

reports promptly. BellSouth should at the very least be required to "clear" each report of data trouble within four hours by isolating the problem inside or outside the central office and transferring the wire. Otherwise, Covad will be severely disadvantaged in comparison to BellSouth's retail DSL services.

Q. Does that conclude your testimony at this time?

A. Yes, it does.

BY MS. BOONE:

Q And have you prepared a summary of your testimony?

A (By Ms. Kientzle) I have prepared a summary for us.

Q Please give it.

A Good afternoon, Commissioners. I would like to thank you on behalf of both Mr. Riolo and myself for allowing us this opportunity to address you on behalf of Covad Communications on line sharing issues. Line sharing, as I think you've heard today, is vital to the development of data services competition, especially in respect to residential and small business consumers. The cost savings achievable by sharing an existing line as opposed to purchasing a stand-alone loop confer a tremendous competitive advantage. A competitive advantage that BellSouth enjoyed for several years while other competitors were precluded from offering line sharing. That is why this Commission must set forward-looking, efficient prices for line sharing now. Such prices should assume costs based on the most efficient line sharing configuration, assuming, for example, a frame-mounted splitter and efficient methods and procedures.

The prices that Mr. Riolo and I presented in our direct testimony are based on just such forward-looking costs. We estimated the required material and labor directly based on Mr. Riolo's extensive engineering experience. This bottoms-up approach results in reasonable prices that will promote

competition and accelerate deployment of DSL in Florida to the benefit of consumers here.

As our rebuttal explained, BellSouth's proposed charges, on the other hand, far exceed forward-looking costs. BellSouth has assumed a less efficient rack-mounted splitter, and -- but even within this context, BellSouth has inflated recurring costs in numerous ways. A conclusion that is supported by some of BellSouth's own documentation. Let me give you just one quick example. A splitter is, as I think you've also heard today, a very simple device, passive with no moving parts and requiring no power. And yet, BellSouth has assumed -- has estimated installation costs based on factors that were developed for sophisticated electronics devices.

Our rebuttal testimony corrects this and other errors, and provides adjustments to BellSouth's cost study for a rack-mounted splitter. The adjusted prices are not far from those prices that we proposed in our direct testimony. BellSouth's nonrecurring cost studies are likewise flawed. Although BellSouth has provided very little description and practically no basis for its assumption, it is clear that -- it is, nonetheless, clear that BellSouth has assumed excessive manual processing, inflated task times, and potentially duplicative costs.

A forward-looking cost study should assume efficient processes, including automation where appropriate, particularly

as Covad has agreed to pay a recurring charge per line to cover BellSouth's costs of automating its processes. The Commission should reject BellSouth's studies and instead adopt our direct estimates.

The prices we have been discussing here are based on copper-only loops, but it is technically feasible to provide line sharing over fiber loops and digital loop carrier. And in Florida, that's about 40 percent or over 40 percent of the loops. So to deny Covad access to customers served over fiber is to close them out of a significant portion of the market.

We urge the Commission to order BellSouth to produce cost studies for line sharing over fiber in the near future and to restrict BellSouth from providing line sharing over fiber itself until it allows competitors the same opportunity.

Finally, we recommend that the Commission adopt the following procompetitive terms and conditions: First, the splitter should be placed on or near BellSouth's frame, the most efficient configuration. Second, line sharing orders are simple and pertain to an existing loop; therefore, the provisioning interval should be 24 hours. Third, Covad must have direct physical access to the loop to properly and expeditiously isolate and resolve problems on the loop.

Thank you. That concludes my summary.

MS. BOONE: The witnesses are available for cross examination.

MR. TWOMEY: Thank you.

CROSS EXAMINATION

BY MR. TWOMEY:

Q Good afternoon. It's Ms. Kientzle?

A Kientzle.

Q Kientzle.

A Just pretend there's no "I," long "E," Kientzle.

Q I've written it phonetically with two Es.

A There you go.

Q All right. Let me start with one of the corrections you made. If you can -- and before I start, in examining the panel, what I'd like to do is direct my questions to one or the other of you, and I'd like a response from the person that I've asked the question of. If you are unable to answer the question or you believe that your counterpart can provide an additional response to make a complete response to my question, just let me know.

A (By Ms. Kientzle) Okay.

Q All right. Ms. Kientzle, let's look at Page 18 of your rebuttal testimony. You changed the $79 to $18; correct?

A That is correct.

Q Did you remove the italics?

A I did not.

Q Do you believe it would be appropriate to remove the statement that follows that says, "This result is, on its face,

unreasonable"?

A No, I do not.

Q So you think $18 is also an unreasonable number?

A I do.

Q What would be a reasonable number?

A Mr. Riolo is our witness on engineering issues such as collocation and central office space costing. My opinion that $18 was an unreasonable -- $18 per square foot per month was unreasonable is based purely on my real world knowledge of rents in expensive urban areas. So I do not have an opinion of what would be a reasonable number, just that this one seems inflated.

Q Well, I can presume that free, that is, zero per month per square foot, would certainly pass your test of being a reasonable number; correct?

A Yes, it would.

Q Okay. Do you have any opinion whatsoever of where on the spectrum between zero and $18 a reasonable number would fall?

COMMISSIONER PALECKI: And, Ms. Kientzle, I would point out that you have filed this testimony jointly. And if Mr. Riolo is the correct person to answer the question, I would urge him to come forward with the answer to this question.

WITNESS KIENTZLE: And I do believe that I did indicate that Mr. Riolo was the witness on this issue, but I

personally do not have a set number that I would consider reasonable. Mr. Riolo is the --

COMMISSIONER PALECKI: Mr. Twomey, you have no objection to Mr. Riolo answering the question?

MR. TWOMEY: I do not. I wanted to determine whether she had an opinion, and we've done that.

BY MR. TWOMEY:

Q Mr. Riolo, do you have an opinion of where on the spectrum between zero and $18 a reasonable number would fall?

A (By Mr. Riolo) I believe a reasonable number would fall probably closer to 18 than it would to zero, if that answers your question.

Q Well, it's certainly a response. Can you give me any further guidance than to say it would be closer to $18?

A I haven't performed studies relative to the state of Florida, so I would be at a loss to give you a number that I didn't feel very firm with.

Q If we were to do such an analysis, would we look at what commercial office space, Class-D, for example, office space would run in downtown Miami if we were looking at collocation in downtown Miami?

A If we were looking at collocation in downtown Miami, certainly that would be appropriate. By the same token, if you were looking at collocation at some more remote portion of Florida, then obviously the local figures would be more

appropriate.

Q Do you think that -- well, that brings up a point. And, Mr. Riolo, I'll address you for this question. Do you think that BellSouth should have standardized pricing per square foot across the State, or should we have individual central office by central office or location by location pricing?

A Well, certainly, it makes it easier for CLECs or, actually, any tenants of BellSouth to have a -- sort of a common cost across the whole spectrum.

Q All right. Ms. Kientzle, you have not been employed by any telecommunications company as an employee; correct?

A (By Ms. Kientzle) That is correct.

Q And you have no background in telecommunications network, engineering issues as part of your job; correct?

A No, other than -- no, I have no background other than just what I've learned through studying cost studies.

Q You understand cost issues, but the background that underlies this testimony requiring telecommunications experience is all derived from Mr. Riolo; correct?

A That's right. I relied on Mr. Riolo's vast experience.

Q Now, in the assumptions that were used to challenge BellSouth's numbers, you assumed the placement of splitters on the main distribution frame; correct?

A I'm not entirely sure what you mean by "the assumptions we used to challenge BellSouth's number." Are you referring to our direct estimates or our rebuttal testimony?

Q Your rebuttal testimony.

A In our rebuttal testimony, we assumed BellSouth's own rack-mounted configuration but made adjustments to it.

Q Okay. In your direct testimony then, the placement of the splitter is on the main distribution frame; correct?

A Yes.

Q From a cost perspective, do you think it's appropriate to assume placement of the splitter on the main distribution frame if that cannot be done in, say, more than half of the central offices at issue?

A I believe that the costs should be based on a frame-mounted splitter if it is feasible in a forward-looking environment. And Mr. Riolo assures me that it is, in fact, feasible in a forward-looking environment. So the answer of what is actually encountered today is not relevant.

Q Okay. Now, when you say it's not relevant, what's actually in place today, are you testifying as an expert on the total element long-run incremental cost methodology that the FCC has proposed and many state commissions have adopted?

A Yes.

Q So it's your understanding that under TELRIC, which I'll refer to, you should ignore the actual network that is in

place for the incumbent local exchange company; is that right?

A It's my understanding that you should base your assumptions on a forward-looking configuration, which means the most efficient configuration that is available today but not necessarily deployed ubiquitously.

Q All right. Mr. Riolo, you are well familiar with the concept that a splitter cannot be mounted on a COSMIC frame; correct?

A (By Mr. Riolo) Yes, to the extent that commonly we refer to the frame-mounted splitter in terms of a conventional frame. It's not technically impossible to mount a frame-mounted splitter on a COSMIC frame. It would require an adapter. I personally don't know of anyone who has actually done that, but it's just a matter of getting the brackets to line up. More than that, it really doesn't matter. It sticks out maybe a little bit longer. But the physical size will plug right in.

If you're interested, I have a frame-mounted splitter here on the table, and I have a conventional 89 block that you typically find on a COSMIC frame. If you put one to the other, you'll notice the dimensions are indeed the same.

COMMISSIONER JABER: Mr. Riolo, you're welcome to do that, but would you turn the microphone towards you?

A Why don't I take this here? And I can operate with the microphone. What I was attempting to show was the fact

that the COSMIC frame 89 block is the same size or the same dimension as the frame-mounted splitter, except in this profile. So you'll notice that if you were to mount the splitter on a COSMIC frame, it would stick out from the frame approximately an inch and a half or so. That may or my not be acceptable for local practice. People may be concerned about a safety issue, someone walking by and maybe banging their head or something. But it's not unheard of to have different profile blocks on the same frame. Typically, you don't find it on a COSMIC frame, but on conventional frames, it's very frequently found. The actual mounting mechanism to the frame is a little bit different, so it would require some kind of adapter on the back of it. But technically, it could be done; generally it's not.

Q Okay. Now, would you describe COSMIC frames as being forward-looking technology when compared to traditional frames?

A Well, surprisingly enough, BellSouth's own discovery information indicates that its cost study is based on a conventional frame and not on a COSMIC frame as the forward-looking frame.

Q Well, my question is based on your opinion. Is COSMIC frame an older technology? Is it not forward looking from your perspective, in your opinion?

A COSMIC frame is a more current frame design. Prior to 1964, as an example, all frames were conventional. It's

only since the advent of the COSMIC frame in 1964 that they have caught on. They are used for other purposes, but you must bear in mind that a main frame, be it COSMIC frame or conventional frame, is designed for a copper environment.

Copper, as you probably know, is a medium that is going the way of all good things. It's being replaced by fiber technology, generally. So there's a migration off of the main frame, be it COSMIC or be it conventional, and more into an FDF, or fiber distribution frame.

Q Well, let's try to stay on focus here. The COSMIC frame, BellSouth has testified that more than half of its central offices in Florida where line sharing has been requested have COSMIC frames; correct?

A I don't recollect that exact percentage.

Q Well, I didn't give you an exact percentage, I just said more than half.

A Well, I don't recollect that statement. Let me correct what I said.

Q If you have Mr. Williams' testimony in front of you, his rebuttal testimony at Page 7 -- I don't know that you need to get it out. But on Page 7, Lines 18, 19, he says, most of the 470 central offices in BellSouth's region where ALECs have ordered splitters to date have COSMIC style main distribution frame and main distribution frame where ALECs interconnect. Do you have any basis to dispute that statement?

A I have no basis to dispute that. But again, I'll reiterate the fact that your own cost study was based on the conventional frame and explicitly says that that's the forward-looking frame.

Q Well, let me ask you about that because the cost study that BellSouth submitted assumes that the splitter is on a relay rack in the common area; correct?

A And that might very well be so. That's a fact apart from what the forward-looking frame is.

Q Well, my point is that the placement of the splitter in BellSouth's cost study is on the relay rack, so whatever assumption you've made about the main distribution frame doesn't impact the splitter; correct?

A I think you're missing the point. It's not the assumption I made. It's the assumption you made in your cost study. You made the assumption that the conventional frame is the forward-looking frame. And now, you're disputing with me the fact that it should have been a COSMIC frame. Your own people made that decision.

Q Well, let me try to be clear in my questions, if I'm not being clear. For purposes of assuming the splitter placement, BellSouth assumed that the splitter wouldn't be on any frame but would be on a relay rack in the common area; correct?

A Yes, in the cost study. I have prior knowledge that

they did indeed try to put frame-mounted splitters in place.

Q If the cost study that we're looking at in this docket has among its assumptions the splitter placement and it's on the relay rack, what difference does it make what assumptions have been made about the main distribution frame for purposes of this cost study?

A Well, from my perspective, it's not the most efficient design. The most efficient design would be to frame mount the splitter. I mean, think about what's involved in a frame-mounted splitter and what's involved in a rack-mounted splitter, for all things being equal, and we can argue about the idea of, is there enough space on the frame.

But in a conventional frame, if you were to mount frame-mounted splitters on a conventional frame for line sharing, all that needs to be done is to remove a cross-connection and install two cross-connections. If you remotely mount the splitter at a rack somewhere, you have to now cable that over to the main frame. So there are additional cables that have to come over. There's length involved which could affect the speed of service. There's additional space involved in terms of the footprint that the bay will stand on. There's the overhead racking that would be necessary to support the cables going back to the main frame that you would have to tie between the bay and the frame. There are the supports in the ceiling that would hold the ladder racks that hold the

cable. It's conceivable. You might have to move the lighting. You might even have to even adjust your air-conditioning. So there are factors that come into play beyond just, I'm going to put it here, I'm going to put it there. And hence, my conclusion that the most efficient arrangement is to put the splitter on the main frame.

Q Now, you cannot put the bantam test jack with the splitter if you frame that; correct?

A Yes, that is correct, but again, you're presupposing that someone wants a bantam test jack arrangement. It may be BellSouth's convention, but I can tell you, I know of no other ILEC in this country that's using that convention. There are certainly alternatives to it that will give you the capabilities of what you're doing with it and at a much less costly arrangement. So, again, I say from an efficiency point of view, a frame-mounted splitter, which is all Covad wants, is the most efficient arrangement.

Q Now, the bantam test jack allows ALECs to do testing from their -- from a central area, a common area in the central office; correct?

A It will allow them to do testing from wherever the bantam test jack happens to reside. By the same token, there are splitter cards that have test points built right into them that are much less costly, that are being used in SBC territory, and certainly there are other ways of doing it. I

mean, there's a way of doing it with no cost where we just go on the main frame and test.

Q Now, BellSouth has expressed its preference that ALECs not be given access to the main distribution frame, that ALEC technicians not have access to the main distribution frame; correct?

A Yes, that is correct.

Q And they're worried about potential disruption of service; correct?

A That is purported in testimony, yes.

Q Now, you have expressed an opinion that BellSouth -- Covad would be responsible for the behavior of its technicians; correct?

A I would believe so, yes.

Q Now, do you think BellSouth has a valid concern that if we put this -- if you take the splitter and put it on a main distribution frame, any ALEC can have its employees accessing that main distribution frame?

A I guess I don't happen to share your grave concern with ALECs having access to the main frame. It's been my experience with the other ALEC that I physically work with that a number of their employees were retired ILEC employees. These are people that had over 30 years' experience. And if I was to match them against the ILEC employees, you know, I was matching a 30-year ALEC employee against, you know, someone who had six

months in an ILEC company. So I submit to you, I would have more faith in the ALEC 30-year serviceman than I would in the six-month ILEC person.

Q Is it your testimony that all ALECs have former Bell employees who have 30 years of experience working for them and in the central offices?

A Certainly not all of them, but they have their share of them.

Q Now, BellSouth has expressed its -- has reported that at various collaboratives ALECs have expressed a preference for having the splitter in a common area. Obviously, Covad doesn't share that opinion. Do you think that BellSouth should take into consideration the views of ALECs other than Covad in configuring its central office?

A I will answer that with a no, only from the perspective that in order to get line sharing up and running, which was the major objective of all CLECs, they could not continue in business if they did not take advantage of line sharing. They were getting into the game two years behind the ILECs. Having fought this thing and finally winning it in court, they get line sharing, and now, they have to get it up and running. And the obstacles that were tossed in their path were things like, where are we going to mount the splitter, or where are we going to put the testing equipment, or how are we going to arrange the tests. And they compromised a great deal

in order to get line sharing up and running by June 6th. It didn't mean that they waived their right to what they felt was something they would have preferred, but they accepted what they had to take, in most cases.

Q So are you suggesting that when ALECs expressed a preference for a common area a rack-mounted splitter, that they were under some sort of duress when they made that expression?

A Yes. To the extent that the duress was, we won't give you access anywhere to test your circuit. I think that constitutes duress.

Q Do you have any basis for suggesting that BellSouth presented this as an ultimatum to any ALEC in any of the collaboratives that were conducted?

A From --

Q Let me back up. Let me try to lay a foundation for that. Did you attend any of the collaboratives in which BellSouth and various ALECs and CLECs participated to discuss line sharing?

A Not in BellSouth.

Q Do you have any basis for suggesting, as I believe you have, that BellSouth presented an ultimatum to any of these CLECs or ALECs that they had no option but to accept BellSouth's proposal on this?

A Yes.

Q What is the basis for that statement?

A My basis is discussion of employees, for example, of Covad who participated in those collaboratives.

Q How many meetings, collaborative meetings, did those Covad employees attend?

A Between the two persons that I got my input from, they attended all of them.

Q Ms. Kientzle, in your testimony, and I'm trying to find the page, you reflect the -- well, you attempt to reflect the Public Service Commission's common cost factor. And, in fact, I think on that you may have made a correction, not to that figure, but on that page earlier. Can you help me with the page number?

MS. BOONE: Page 22.

MR. TWOMEY: Page 22. Thank you.

MS. BOONE: Direct.

MR. TWOMEY: Yes. Thank you.

BY MR. TWOMEY:

Q Ms. Kientzle, would you agree that under TELRIC, BellSouth is entitled to collect -- or excuse me, to recover both shared and common costs?

A (By Ms. Kientzle) Yes.

Q Do you know whether the common cost markup of 6.24 percent includes shared costs?

A I believe it does not.

Q Have you made any allowance for recovery of the

shared costs?

A No, we didn't in our calculations. But I would like to point out that the shared cost factor that BellSouth applied was one that was developed for pair gain systems, which are considerably more sophisticated devices than splitters. And BellSouth, to my knowledge, has provided no information or documentation, no support in this docket that would indicate that that shared cost factor applies to splitters in any way.

So although I would readily admit that if this Commission were to adopt appropriate shared cost factors that we have not included in our calculations, they should be included. As we stated in our direct testimony, we do believe that these calculations should be conformed to any Florida-specific inputs that this Commission has adopted. I think that we have a disagreement on whether or not there, in fact, are any shared costs associated with splitters.

Q Okay. And I want to make sure I understand the scope of what you've just said. You agree that to the extent there are assumptions, factors, adjustments in the generic cost docket, Number 990649-TP, that are relevant or are transferrable, if you will, to the line sharing cost study, that those things ought to be consistent; is that right?

A Yes, that's right. And I believe we said that in our direct testimony.

Q So you have not calculated an alternative shared cost

factor?

A No, I have not. But I might elaborate to say here that those factors were developed before there were splitters in the investment or expense base. And so -- and to apply them now to splitters could very well overrecover the shared costs. And so I say, once again, I have no basis to believe there are any shared costs associated with splitters other than the common costs recovered in the common cost markup.

Q And what are the common costs that are identified in the common cost markup?

A What are the costs specifically?

Q Yes.

A The common cost markup would cover company-wide overhead costs such as administration, management salaries, that kind of thing.

Q And the shared cost for categories would include technicians who handle splitters but also do other things. Would that be an example of a shared cost?

A A shared cost would be a cost that is shared across different unbundled network elements, yes.

Q And would that include any recovery for investment associated with the central offices?

A I'm not sure about that.

Q Okay. Would the shared -- could the shared cost also include any materials in the central offices that are used for

the installation of splitters and also for the installation of other pieces of equipment?

A It might.

Q Okay. So do you have any reason to believe that there are not examples of shared costs that would apply in this circumstance?

A Well, we have in our estimate -- we have actually estimated the costs directly, so we don't have to apply these factors. Mr. Riolo gave us -- gave me an indication of what materials and labor would be required for splitters, and that's how we estimated directly.

Q Well, if you used direct costs that you calculated with Mr. Riolo, what was the purpose of applying the common cost factor?

A Well, the common costs apply across the whole company. We estimated the direct costs for line sharing specifically. We didn't try to estimate what your salary is.

COMMISSIONER JABER: Mr. Twomey?

MR. TWOMEY: Yes.

COMMISSIONER JABER: I'm not trying to rush you, but I am trying to evaluate how much longer we should go tonight. So tell me -- give me a guess of how many more questions you have -- how much further you need with these witness, how about that?

MR. TWOMEY: I don't need very long.

COMMISSIONER JABER: Okay.

MR. TWOMEY: In fact, give me two minutes, I can go through my notes here, and I may be nearly finished.

COMMISSIONER JABER: Okay. Two minutes.

MR. TWOMEY: Okay. I believe I am nearly done.

BY MR. TWOMEY:

Q Ms. Kientzle, in your summary, you said that the Commission should restrict BellSouth's ability to offer, I believe, ADSL services over fiber; is that right?

A (By Ms. Kientzle) Yes. What I said was that I believe the Commission should restrict BellSouth's ability to provide line sharing over loops served by fiber until competitors have a similar opportunity.

Q I want to make sure -- you changed -- I said ADSL service; you changed to line sharing. Do you mean that we shouldn't provide line sharing to other CLECs, or do you mean we shouldn't provide our own direct service?

A I mean that BellSouth should not be allowed to provide retail service, retail line sharing service, over fiber until competitors, such as Covad, have a nondiscriminatory option to do the same.

Q Now, the issue statement for this arbitration to which you are testifying is Issue 24, concerning the rates proposed by BellSouth for line sharing. Are the rates proposed by BellSouth for line sharing compliant with TELRIC pricing?

Is there another issue that you are testifying about when you asked the Commission to restrict BellSouth's ability to offer retail ADSL services, or is it meant to be relevant to this Issue 24?

A It's meant to be relevant to Issue 24. I think that the prices that this Commission adopts for line sharing, both over copper and fiber, and the options that the CLECs are offered are relevant to whether or not competition can flourish in Florida. So I was just trying to bring to the Commission's attention that BellSouth has not provided any costs or prices for us to evaluate on line sharing over fiber. And so we couldn't say whether or not they are forward-looking, and we would like the Commission to direct BellSouth to provide such a cost study.

Q Now, do you understand that arbitration process is set out in the Telecommunications Act? I know you are not a lawyer.

A Generally. Like you say, I am not a lawyer.

Q Do you know if Covad has -- your client -- has requested that this Commission prevent BellSouth from offering ADSL service in its petition for arbitration in this case?

A I do not know.

Q If that issue has not been presented to this Commission, your testimony on that point would not be relevant; correct?

A I'm not sure about that.
Q Okay.
A I mean, I think that it is relevant to the prices, and that if BellSouth is allowed, for example, to go forward with line sharing over fiber while saying, oh, we don't have a cost study for you to evaluate, then competitors will be severely disadvantaged. And I saw that as a part of my job while reviewing the costs for line sharing.
Q Now, BellSouth is proposing rates and is willing to offer line sharing to competitors; correct?
A I'm sorry, could you repeat that question?
Q You are not suggesting that BellSouth has refused to provide line sharing to competitors over fiber, are you?
A It's my understanding that BellSouth has not been willing to do that to this point, yes.
Q There are circumstances under which BellSouth has to permit collocation of DSLAMs in remote terminals; correct?
A Yes.
Q And those are set forth in FCC requirements; is that right?
A Yes.
MR. TWOMEY: That's all I have.
COMMISSIONER JABER: Commissioners. Staff.
MS. BANKS: Staff has no cross for this witness -- for these witnesses.

We'd like to make, if I could, one request.

COMMISSIONER JABER: Uh-huh.

MS. BANKS: For the changes that Ms. Kientzle referenced earlier, is it possible that an errata sheet could be filed maybe as a late-filed exhibit?

COMMISSIONER JABER: I don't think that's necessary Ms. Banks. I'm sure it's quite possible, but you'll have the transcript.

MS. BANKS: Okay. That's fine.

COMMISSIONER JABER: So, yeah, rather -- we'll have the transcript.

MS. BANKS: Okay. That's fine. Thank you.

MS. BOONE: I have no redirect. Thank you.

COMMISSIONER JABER: Thank you. Thank you both.

WITNESS RIOLO: Thank you.

WITNESS KIENTZLE: Thank you.

COMMISSIONER JABER: I appreciate that you waited this long, and you may be excused. Thank you.

(Witnesses excused.)

COMMISSIONER JABER: Let me take this opportunity to thank the parties, counsel, and the witnesses for a very good day. I would expect tomorrow to be even better. See, this is good. You spoiled me. I just -- yeah, that's right. I expect --

MR. TWOMEY: I don't know if it's for the witnesses

or the lawyer.

COMMISSIONER JABER: Well, it's both. Please take an opportunity to make sure your witnesses know that we do read the testimony. So summaries really don't need to be longer than five minutes. And they don't need to feel compelled to summarize their testimony. That's something to think about too.

Please also let everyone know that we will end tomorrow at 3:30 because I have to end at 3:30 tomorrow, and hopefully that will be the end of the hearing. So think about that.

The other thing I want to bring to everyone's attention is, I think Commissioner Palecki asked very, very good questions today that should inspire the parties to sit down tonight while it's fresh on your mind and think about the issues in the discussion today, because this is an arbitration hearing, not a negotiation. Arbitration assumes that you have already sat down and negotiated as much as you can. And what I heard today, and I think what Commissioner Palecki heard today, if I could take the liberty of summarizing, is there's probably room for additional compromise. So take whatever opportunities you can.

Commissioner Palecki, did you want to add anything?

COMMISSIONER PALECKI: Yes. I would echo Commissioner Jaber's suggestion. And I would also request that

if either of the parties have witnesses here that are experts in these areas that could help in the arbitration process, that they allow those experts to meet eyeball to eyeball in trying to resolve some of these issues. It seems to me the parties are very close on at least four or five of the issues and perhaps more than four or five of the issues to reaching agreement. And I would thank the parties in advance for their best efforts in these areas.

COMMISSIONER JABER: We will start tomorrow at 8:30 in the morning. Thank you.

(Hearing recessed at 6:05 p.m. and will resume at 8:30 a.m. on June 28, 2001, at the same location.)

(Transcript continues in sequence with Volume 4.)

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STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, TRICIA DeMARTE, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard 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 constitutes a true transcription of my notes of said proceedings.

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 5TH DAY OF JULY, 2001.

TRICIA DeMARTE
FPSC Official Commission Reporter
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