

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition by DIECA Communications,
Inc., d/b/a Covad Communications Company
for Arbitration of Unresolved Issues in
Interconnection Agreement with BellSouth
Telecommunications, Inc.

Docket No. 001797-TP

Filed: May 23, 2001

REBUTTAL TESTIMONY OF

JOSEPH P. RIOLO

ON BEHALF OF COVAD COMMUNICATIONS COMPANY

PUBLIC VERSION

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

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

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

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

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

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

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

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

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

22 **Q. What is the purpose of your rebuttal testimony?**

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

5 **Issue 29: WHAT RATES SHOULD COVAD PAY FOR COLLOCATION?**

6 **Q. Have you reviewed BellSouth’s cost study and proposed rates for collocation for**
7 **Florida?**

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

12 **Q. How is your testimony organized?**

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

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

19 **Q. What is BellSouth’s proposed rate for an Application for Physical Collocation?**

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

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

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

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

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

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

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

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

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

1 and subsequent application charge based on these reasonable times.

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

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

13 **2. Firm Order Processing Charges - Element H.1.45**

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

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

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

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

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

10 **3. Collocation Cage Construction -- Element H.1.23**

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

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

16 Then, BellSouth assumes that the construction, the grounding, the minimal
17 electrical work necessary, the engineering, and supervision of this process will cost

18 ***BST PROPRIETARY [REDACTED]

19 [REDACTED] *** END PROPRIETARY. In my experience,
20 BellSouth has greatly inflated the cost of materials, labor and management of this
21 process. The price of cage material on the internet is \$928 for a 10 x 10 cage, but
22 BellSouth proposes ***BST PROPRIETARY [REDACTED] ***END PROPRIETARY for the

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

7 The bottom line is that I've constructed caged collocation spaces for less than
8 \$4000 while BellSouth proposes ***BST PROPRIETARY [REDACTED] ***END
9 PROPRIETARY. BellSouth rates should be reduced to reflect the more reasonable
10 material and labor costs I have proposed.

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

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

13 A. In several ways, all of which appear to unnecessarily increase Covad's costs. First,
14 BellSouth proposes a Security Access System on a per square foot basis. There is a
15 nonrecurring charge of \$55.59, presumably for every collocation space, and there is a
16 \$0.0113 recurring charge assessed for every square foot of space used by Covad in a
17 central office. So essentially, BellSouth will be recovering the cost of installing its
18 security systems for as long as a Covad has the collocation space. This charge appears
19 to apply even when the "security system" is nothing more than a lock and key.
20 Although this charge seems small, all of these per square foot charges add up.

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

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

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

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

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

22 **a. Recurring Charges**

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

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

10 **b. Nonrecurring Charges**

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

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

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

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

5 **6. POT Bays (DS0, DS1, DS3) -- Elements H.1.13-H.1-16**

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

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

22 **7. Cable Records -- Elements H.7**

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

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

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

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

16 **Q. How has BellSouth presented its space preparation charges?**

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

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

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

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

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

1 construction jobs all took place between April and November 1999, apparently. This
2 was a time of high volume collocation. Thus, the space constructed and prepared (and
3 paid for by nonrecurring charges imposed on ALECs at that time) should, at least,
4 somewhat compensate BellSouth for the work. Now, there is much less collocation
5 activity, as some ALECs go out of business while others withdraw from collocation
6 spaces. Thus, there should be a surplus of prepared space in the BellSouth system,
7 consisting of space prepared and paid for in nonrecurring charges by ALECs, huge
8 additions built to central offices, and space released by ALECs no longer operating in
9 certain areas. Since BellSouth's charges do not appear to take any of this into
10 consideration, they are too high and must be reduced.

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

13 **Q. What is this element for?**

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

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

1 **this proceeding?**

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

10 **Q. Does this conclude your rebuttal testimony?**

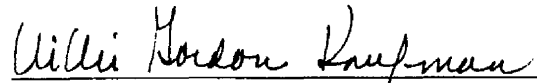
11 A. Yes.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Rebuttal Testimony Joseph P. Riolo on Behalf of Covad Communications Company has been furnished by (*) hand delivery this 23rd day of May, 2001, to the following:

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