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Issues: Telephone Plant

Witness: Myron E. Couch  
Sponsoring Party: Missouri Public Service Commission  
Type of Exhibit: Rebuttal Testimony  
Case No.: TO-2000-322

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**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**REBUTTAL TESTIMONY**

**OF**

**MYRON E. COUCH**

**IN THE MATTER OF THE PETITION OF DIECA  
COMMUNICATION, INC. D/B/A COVAD COMMUNICATIONS  
FOR ARBITRATION OF INTERCONNECTION, RATES, TERMS,  
CONDITIONS AND RELATED ARRANGEMENTS WITH  
SOUTHWESTERN BELL TELEPHONE COMPANY**

**CASE NO. TO-2000-322**

**Jefferson City, Missouri  
January 28, 2000**

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REBUTTAL TESTIMONY

OF

MYRON E. COUCH

In the matter of the Petition

of DIECA Communications, Inc. d/b/a Covad Communications

for Arbitration of Interconnection Rates, Terms, Conditions and Related Arrangements

with Southwestern Bell Telephone Company

CASE NO. TO-2000-322

Q. Please state your name and give your business address?

A. My name is Myron E. Couch, and my business address is P.O. Box  
360, Jefferson City, Missouri, 65102.

Q. By who are you employed?

A. I am employed by the Missouri Public Service Commission (Commission).

Q. In what capacity?

A. I am a Field Services Specialist II in the Telecommunications Department.

Q. How long have you been employed by the Commission?

A. Since August 1, 1986.

Q. Have you previously testified before this Commission?

A. Yes, I have.

Q. Will you please state for the record your qualifications, your  
educational background and experience?

1 A. I received a Bachelor of Arts degree from Missouri Baptist College in  
2 St. Louis, Missouri in 1974 and a Master of Divinity degree from Southern Baptist  
3 Theological Seminary in Louisville, Kentucky in 1976.

4 I served four years in the United States Air Force as a Communications Specialist  
5 between 1957 and 1961. Southwestern Bell Telephone Company employed me from  
6 1962 until 1974, in various craft positions as a Frameman, Station Installer,  
7 Teletype/Data Machine Repairman and Crossbar Number One Switchman. From 1978  
8 until 1983, Continental Telephone Company employed me, first as a Combination Station  
9 Installer/Repairman. After a year in that position I was promoted to Materials and  
10 Supplies Supervisor in charge of the drop-plow contractors, company vehicles and the  
11 operation of the Continental Telephone Company's warehouses in Wentzville and  
12 Warrenton, Missouri.

13 I accepted employment at the Commission August 1, 1986, and since that time I  
14 have been involved in routine service audits of telephone central offices throughout the  
15 State of Missouri. Since I have been with the Commission I have attended a Maintenance  
16 Course for the Stromberg Carlson XY central office, a course titled "Managing Exchange  
17 Cable" and courses dealing with Northern Telecom's DMS 10 System Translations and  
18 Method of Operation/Traffic Provisions.

19 Q. Mr. Couch, what is the purpose of your direct testimony in this case?

20 A. I will address issues A (3), A (6), and B in this case and will explain Staff's  
21 position concerning technical concerns in this case.

1       **ISSUE A3**

2       Q. Mr. Donovan, a witness for DIECA Communications, Inc. d/b/a Covad  
3       Communications (Covad), states in his direct testimony, on page 41, that he would not  
4       “assign a highly paid engineer to perform and analyze what is known as a ‘length &  
5       gauge’ study”. Do you agree with his analysis?

6       A. No, I do not. This work should be done by an outside plant engineer. It is my  
7       opinion that loop qualification is significant to the company that requests it. First, loop  
8       qualification requires an individual to look at the loop to determine the length, whether  
9       the loop is loaded, has a bridged tap or a repeater. Second, it would be a disservice to the  
10      company ordering the loop to use an unqualified person to perform a significant task. If a  
11      non-technical person makes that evaluation and mistakenly evaluates the loop as  
12      qualified when it is not, the requesting company will waste a technician’s time and a  
13      customer’s time turning up a loop that will not work.

14      Q. Is the loop qualification no more than a database check, as Mr. Donovan seems  
15      to imply on page 41 in his direct testimony?

16      A. It certainly could be. Southwestern Bell Telephone (SWBT) does have a  
17      Harris 105A Remote Test Unit in most of its large Missouri central offices and the 105A  
18      can do pre-qualification on any working line. Someone qualified to interpret the results  
19      should operate the 105A. If the 105A is used in conjunction with the Harris Wide Band  
20      Test Pack it can be used to qualify a working loop for xDSL services. SWBT should be  
21      using that or a similar technology to do prequalification and qualification in addition to  
22      using any existing data base information.

1 Q. Could Covad use a similar technology to do pre-qualification and qualification  
2 on SWBT's loops?

3 A. No. Only SWBT can use the technology to test its lines. If Covad was a  
4 switch based CLEC it could test any lines it provided but could not test lines provided by  
5 another company.

6 Q. Both Mr. Lube and Mr. Latham, witnesses for SWBT, indicate that SWBT  
7 does not have a complete inventory of the Company's cable facilities and therefore a  
8 complete mechanization of loop qualification is not possible. What is Staff's opinion on  
9 that issue?

10 A. In our meeting with SWBT the Company indicated that it would probably  
11 never have that information in a complete fashion. Staff believes that if SWBT would  
12 utilize its testing capability to the fullest, the Company could mechanize the qualification  
13 of all of its working lines. The remaining spare cable pairs could be tested and the  
14 information downloaded as company forces have the time to do that. Staff is of the  
15 opinion that a very detailed and complete inventory provided by testing would be of  
16 considerable use to SWBT as well as to the companies with which it negotiates these  
17 interconnection agreements.

18 **ISSUE A (6)**

19 Q. Mr. Couch, do you have any experience in doing the kind of work that is  
20 required to condition loops?

21 A. Yes. I worked for both SWBT and Continental Telephone doing outside plant  
22 work. I've spent considerable time working in exchanges in and near the St. Louis area.

1 I am familiar with SWBT's service area in St.Louis and have worked on outside plant  
2 facilities in about twenty wire centers in that area.

3 Q. Would you make some estimates of the time required to condition loops?

4 A. Let me begin with the removal of load coils. Mr. Smallwood, a witness for  
5 SWBT, has testified to the amount of time, he believes, a cable splicer will spend for  
6 each load coil removed from service. Mr. Donovan claims various time requirements  
7 depending on the location of the load coil. Staff believes that SWBT's estimate is high  
8 and that a cable splicer who is being efficient will need less time to remove load coils.  
9 Staff estimates that, on average, a cable splicer will be able to travel to the specified  
10 location, secure the location, open the terminal, locate the specific cable pair, cut out the  
11 load coil, resplice the cable pair, restore the binders and close up the terminal in about  
12 120 minutes. Some difficult locations, like manholes, will take longer and easier  
13 locations, like pedestals, will take less time.

14 Q. How much time would be required in those situations where a technician will  
15 be removing a second load coil from a different cable in the same closure?

16 A. Staff estimates that removing a load coil in that situation would require another  
17 30 minutes. Since the technician is already inside the terminal the task would require  
18 locating the correct pair and verifying that it is the correct pair and then cutting out the  
19 load coil, resplicing the pair, restoring the binders in that cable.

20 Q. Mr. Donovan has suggested in his direct testimony that it would be more  
21 efficient for SWBT to remove another forty-nine pairs at the same time. Would you  
22 agree that he is correct?

1           A. Yes, Mr. Donovan is correct when he says that it is efficient to remove more  
2 load coils when the closure is open. Staff agrees that it is true that the more times  
3 technicians open closures the more opportunity there is to compromise the cable.

4           Q. Mr. Couch, what is your estimate of the time required for a splicer to remove a  
5 bridged tap in the field?

6           A. Staff estimates that a splicer would need about two hours, on average, to  
7 accomplish that task. The two hours would include time for travel to the location, time to  
8 secure the location, open the terminal or closure, locate the correct cable pair, verify the  
9 pair, cut out the bridged tap, replace the binders and close the terminal. Again, some  
10 instances would require more time and others would require less. In most cases the  
11 location will determine the exact amount of time required to complete the work.

12           Q. How much time would you estimate a splicer would need to remove a bridged  
13 tap in another cable within the same enclosure?

14           A. As was the case with load coil removal, Staff estimates that, on average, the  
15 task would require thirty minutes. As in the case of load coil removal, the work consists  
16 of opening another cable, finding, verifying the pair and replacing the binders.

17           Q. Mr. Couch, how often would SWBT need to condition loops more than 12,000  
18 but less than 17,500?

19           A. Let me address the issue of load coils on loops that are less than 17,500 feet.  
20 As Mr. Lube and others in the case have mentioned, load coils are not placed on loops  
21 that are less than 18,000 feet. That fact, alone, makes a large percentage of the loops  
22 available for Covad's use without conditioning. It is true, however, that some of the  
23 cable that at one time provided service to customers more than 18,000 feet from the

1 central office has since been reconfigured to serve customers closer than 18,000 feet.  
2 This is the cable that would have load coils left in place since those load coils do not  
3 degrade Plain Old Telephone Service (POTS). However, reconfiguration of cable is not a  
4 primary method for engineering cable and the loops that fit that category should be small  
5 in number.

6 Second, SWBT has used what is called cut through drops for the past twenty  
7 some years. At one time, every time a customer was disconnected for any reason, a  
8 technician was dispatched to remove the drop at the telephone terminal. SWBT found  
9 that practice to be inefficient and therefore a policy called "Cut Through Drops" or  
10 "Dedicated Cable Pairs" was initiated. In practice when a customer was disconnected the  
11 Company would leave the drop connected and would suspend the service either at the  
12 Main Distributing Frame or in more recent years would put soft dial tone on the cable  
13 pair. This practice allowed the Company to offer service to a new customer at the same  
14 location with a minimum of effort by technicians. The effect of this practice was that  
15 bridged taps were no longer useful or required because a cable pair was dedicated to a  
16 specific location. Since that practice has continued for a very long time, Staff believes  
17 that engineering practice since that time would have precluded the use of bridged taps  
18 since those taps would not have proven useful. Therefore, Staff believes there are only a  
19 small percentage of cable pairs in use at this time with bridged taps.

20 Third, T1 repeaters are used only when a cable pair has been used for T1 service.  
21 Since that service is not requested often by customers, Staff is of the opinion that there  
22 will not be many repeaters that need to be removed. Therefore, Staff's position is that



1 loop conditioning will be required on only a small percentage of loops requested by  
2 Covad or any other company requesting loops capable of xDSL.

3 Q. Mr. Smallwood has in his direct testimony, in the highly confidential schedule,  
4 a calculation for restoring a bridged tap when service reverts from xDSL to POTS.  
5 Should it be necessary for SWBT to automatically include restoration of a bridged tap  
6 when the loop is no longer used for xDSL service?

7 A. No. It is Staff's opinion that once a bridged tap is removed that there is no  
8 reason to restore it since loops are now dedicated to a specific location.

9 **ISSUE B**

10 Q. Should SWBT have the ability to make unilateral substantive modifications to  
11 its technical publications?

12 A. It is Staff's opinion that the interconnection agreement reached through  
13 agreement by the parties or through arbitration by the Commission should remain  
14 inviolate. Any technical publication issued after the agreement has been approved should  
15 not change the agreement during the life of the agreement.

16 Q. Mr. Lube points out that the technical publications will change due to changes  
17 in technology and changes in regulation. If those changes occur, how can SWBT provide  
18 service to a company through an agreement in violation of those changes?

19 A. Staff recognizes that change truly is inevitable and looking down the road to  
20 the future it is impossible to predict when and where those changes will occur. However,  
21 if SWBT encounters a change that makes existing agreements obsolete, SWBT can either  
22 renegotiate with Covad or failing that, can bring the disagreement back to the  
23 Commission for arbitration.

1 Q. Both Covad and SWBT have argued the need for a viable definition to the term  
2 "substantial". Is it possible to define the term and thereby deal with future problems  
3 created by changes in the technical publications?

4 A. No, it isn't possible since the decision concerning whether or not a change is  
5 substantial will always remain open to interpretation by the parties to the agreement.  
6 Since it is impossible to define substantial in such a way as to remove it from contention,  
7 it is necessary to maintain the approved conditions of the existing interconnection  
8 agreement.

9 Q. Does Staff anticipate there will be changes to the technical publications that  
10 would violate the approved agreement?

11 A. No, Staff does not anticipate those kind of changes occurring. Technical  
12 publications are written to give guidance to SWBT technicians as they install and  
13 maintain the various technologies. The publications are more of a source of technical  
14 requirements and it is unlikely that as such they should limit the kind of service that  
15 Covad could offer.

16 Q. Mr. Couch do you have any experience with SWBT's technical publications?

17 A. When I was employed by SWBT, I used the Bell System Practices which  
18 provided the same kind of information that is used in the Technical Publications. Those  
19 practices did change quite often but the changes merely took into account the kind of  
20 changes that allowed the technology to be deployed in an effective manner.

21 Q. Is there any possibility that SWBT could use these technical publications to  
22 disadvantage Covad competitively?

1           A. There is always that possibility though it is unlikely. However even the  
2 unlikely possibility requires that some understanding be reached before that unexpected  
3 event could occur. Therefore, Staff maintains that SWBT should be allowed to make  
4 changes to its technical publications without prior approval by companies with which it  
5 has interconnection agreements. However, those changes should not be allowed to  
6 change existing agreements between the companies unless new agreements are reached  
7 or the Commission successfully arbitrates those disagreements.

8           Q. Would you summarize your testimony in this case?

9           A. Yes. Staff has stated in Issue A (3) that outside plant engineers are the  
10 appropriate personnel to do loop qualification and that the use of any person not qualified  
11 could diminish the service it is offering. In Issue A (6) Staff has stated that SWBT's  
12 estimated time requirements for a splicer doing conditioning work seem high and Staff  
13 has suggested alternative estimates of those requirements. In Issue B, Staff has stated  
14 that the approved interconnection agreements should prevail over any perceived  
15 substantive changes in SWBT's technical publications.

16          Q. Does that conclude your testimony in this case?

17          A. Yes, it does.  
18

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the matter of the Petition of DIECA  
Communication, Inc. d/b/a Covad  
Communications for Arbitration of  
Interconnection Rates, Terms, Conditions  
and Related Arrangements with  
Southwestern Bell Telephone Company

Case No. TO-2000-322

**AFFIDAVIT OF MYRON E. COUCH**

STATE OF MISSOURI     )  
                                      ) ss  
COUNTY OF COLE     )

Myron E. Couch, of lawful age, on his oath states: that he has participated in the preparation of the foregoing written testimony in question and answer form, consisting of 10 pages of testimony to be presented in the above case, that the answers in the attached written testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

Myron E. Couch  
Myron E. Couch

Subscribed and sworn to before me this 28th day of January, 2000.

Natelle Rae Anna  
Notary Public

My commission expires \_\_\_\_\_

