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Issues: Cost Studies
Witness: James R. Smallwood
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Sponsoring Party: Southwestern Bell Telephone Company
Case No: TO- 2000-322

SOUTHWESTERN BELL TELEPHONE COMPANY

CASE NO. TO-2000-322

REBUTTAL TESTIMONY

OF

JAMES R. SMALLWOOD

St. Louis, Missouri
January 2000

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Petition of	)	
DIECA Communications, Inc	)	
D/B/A Covad Communications Company	)	TO-2000-322
for Arbitration of Interconnection	)	
Rates, Terms, Conditions and Related	)	
Arrangements with Southwestern	)	
Bell Telephone Company	)	

AFFIDAVIT OF JAMES R. SMALLWOOD

STATE OF MISSOURI	)	
	)	SS
CITY OF ST. LOUIS	)	

I, James R. Smallwood, of lawful age, being duly sworn, depose and state:

1. My name is James R. Smallwood. I am presently Manager - Cost Analysis for Southwestern Bell Telephone Company.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.

James R. Smallwood

Subscribed and sworn to before me on this 24th day of January 2000.

Notary Public

KEVIN K. SELSOR
NOTARY PUBLIC STATE OF MISSOURI
ST. LOUIS COUNTY
MY COMMISSION EXP. JULY 6, 2000

REBUTTAL TESTIMONY OF JAMES R. SMALLWOOD

SOUTHWESTERN BELL TELEPHONE COMPANY

CASE NO. TO-2000-322

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James R. Smallwood. My address is One Bell Center, 38-X-8, St. Louis, Missouri 63101.

Q. ARE YOU THE SAME JAMES R. SMALLWOOD WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to rebut certain portions of the direct testimony Ms. Terry Murray on behalf of Covad. In doing so, I will explain that SWBT's cost studies are consistent with the proper application of the TELRIC methodology and that SWBT's costs have been calculated correctly with regard to the activities that will be undertaken at the request of, and for the benefit of, Covad.

I. ECONOMIC AND PUBLIC POLICY FRAMEWORK

Q. IS THE COST BASIS FOR THE LOOPS THAT SWBT IS MAKING AVAILABLE AN IMPEDIMENT TO ACCESS TO ADVANCED TELECOMMUNICATIONS SERVICES? (Murray Direct, p.6)

A. No. Such a suggestion only serves to confuse what underlies those costs. Addressing two of the main cost elements at issue, unbundled loops and loop conditioning, the costs are developed based on principles established by the FCC that are intended to allow for competitive access. While access to such services is certainly available, the question arises as to what the cost is to make that access available. The costs for unbundled loops in Missouri today reflect FCC TELRIC guidelines. For loops that currently include devices that inhibit DSL type services, the FCC indicated that the ILEC should remove those devices at a CLEC's request and should be compensated by the CLEC to do so. The FCC has made it clear in its Local Competition Order that SWBT is entitled to recover the costs incurred for conditioning.[1]

Q. DOES CHARGING FOR CONDITIONING PUT COVAD ON AN UNEVEN COMPETITIVE FOOTING WITH SWBT? (Murray Direct, pp. 6,7)

A. Certainly not from a cost perspective. The cost basis for loop conditioning to Covad is the same as that which SWBT assumes for its own retail customers. In

[1] First Report and Order, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, August 1, 1996, paragraph 382.

other words, if a customer requests an xDSL service, and SWBT is required to condition a loop to provide that service, then that customer will pay SWBT to perform that conditioning. Given that SWBT's proposed rates to Covad, in accordance with the Commission's order in Case No. TO-99-461, reflect the application of a 19.2% discount and an overall cap of $727.20 for all conditioning performed on a given loop, Covad is certainly not at a competitive disadvantage vis-à-vis SWBT as a result of conditioning charges.

Q. DO SWBT'S COST STUDIES COMPLY WITH THE TWO ASPECTS OF TELRIC METHODOLOGY CITED BY MS. MURRAY? (MURRAY DIRECT, P.8)

A. Yes. SWBT's models, which have been accepted by this Commission in Case Nos. TO-97-40 / TO-97-67, model a forward-looking network using Commission ordered inputs. In addition, the recurring and nonrecurring costs considered in SWBT's loop studies *are* based on the same forward-looking network. Therefore, these studies minimize total forward-looking costs as, Ms. Murray correctly states, a TELRIC study should.

Q. SWBT'S NONRECURRING LOOP CONDITIONING COST STUDY DEVELOPS COSTS FOR REMOVING XDSL INHIBITORS, SUCH AS LOAD COILS, BRIDGED TAP, AND REPEATERS THAT ARE IN THE EXISTING NETWORK. IS THIS CONSISTENT WITH FCC REQUIREMENTS?

A. Yes. When the FCC developed the TELRIC methodology in its Local Competition Order, it also provided that ILECs, such as SWBT, should be able to

recover conditioning expenses incurred on behalf of CLECs, such as Covad. The FCC found no inherent contradiction between pricing UNEs based on TELRIC cost studies and, at the same time, allowing ILECs to recover real expenses incurred to condition UNE loops. Furthermore, SWBT's UNE studies, such as the UNE loop study, were developed to reflect forward-looking nonrecurring and recurring costs on the same network design. Loop conditioning functions are not a part of the UNE loop study. Loop conditioning is more appropriately thought of as a separate nonrecurring charge identified by the FCC, rather than a nonrecurring charge associated with a UNE loop. SWBT's loop conditioning study is forward-looking because it utilizes procedures and times that are based on the most efficient, least cost practices of SWBT. It is important to remember that the objects of the two studies, unbundled loops and loop conditioning are different, and the costing approaches have been specifically laid out by the FCC for each.

Q. SHOULD THE COMMISSION SET PRICES IN THIS ARBITRATION THAT DISREGARD THE ACTUAL PROVISIONING PRACTICES OR TECHNOLOGIES THAT SWBT DEPLOYS IN ITS NETWORK TODAY? (MURRAY DIRECT, P.3)

A. No. The FCC has specifically addressed services such as xDSL and indicated that modifications to existing facilities should be paid for by the CLEC that requests such modifications. This Commission has already considered this issue

in two separate arbitration proceedings and has determined in both proceedings that SWBT is entitled to recover loop-conditioning costs.[2]

Q. IN WHAT PROCEEDINGS HAS THE FCC DETERMINED CONDITIONING COSTS FOR XDSL SERVICES ARE APPROPRIATE?

A. The FCC has made that clear in several proceedings. The FCC first determined that ILEC's are entitled to recover costs associated with loop conditioning in its Local Competition Order when it stated:

> Our definition of loops will in some instances require the incumbent LEC to take affirmative steps to condition existing loop facilities to enable requesting carriers to provide services not currently provided over such facilities. For example, if a competitor seeks to provide a digital loop functionality, such as ADSL, and the loop is not currently conditioned to carry digital signals, but it is technically feasible to condition the facility, the incumbent LEC must condition the loop to permit the transmission of digital signals. Thus, we reject BellSouth's position that requesting carriers "take the LEC networks as they find them" with respect to unbundled network elements. As discussed above, some modification of incumbent LEC facilities, such as loop conditioning, is encompassed within the duty imposed by section 251(c)(3). The requesting carrier would, however, bear the cost of compensating the incumbent LEC for such conditioning.[3] (Original Footnotes Omitted) (Emphasis Added)

The FCC reaffirmed this conclusion and specifically rejected Covad's argument in its UNE Remand Order in which it stated:

> In the Local Competition First Report and Order, the Commission also stated that requesting carriers would compensate the incumbent LECs for the cost of conditioning the loop. Covad and Rhythms argue that, because loops under 18,000 feet generally should not require devices to enhance voice-

[2] Arbitration Order, Petition of BroadSpan Communications, Inc., for Arbitration of Unresolved Interconnection Issues Regarding ADSL with Southwestern Bell Telephone Company, Case No. TO-99-370, Issued June 15, 1999; and, Arbitration Order, In the Matter of the Petition of Sprint Communications Company, L.P., for Arbitration of Unresolved Interconnection Issues Regarding xDSL with Southwestern Bell Telephone Company, Case No. TO-99-461, Issued August 3, 1999.

[3] Paragraph 382.

transmission, the requesting party should not be required to compensate the incumbent for removing such devices on lines of that length or shorter.

We agree that networks built today normally should not require voice-transmission enhancing devices on loops of 18,000 feet or shorter. Nevertheless, the devices are sometimes present on such loops, and the incumbent LEC may incur costs in removing them. Thus, under our rules, the incumbent should be able to charge for conditioning such loops.[4] (Original Footnotes Omitted) (Emphasis Added)

Again in its recent Advanced Services order, the FCC referenced its earlier determinations that an ILEC is entitled to recover conditioning charges.

In the Local Competition Third Report and Order we clarified that incumbent LECs are required to condition loops to enable requesting carriers to offer advanced services, wherever a competitor requests, even if the incumbent LEC itself is not offering xDSL services to the customer on that loop. We explained that a conditioned loop describes a copper loop from which bridge taps, low-pass filters, range extenders, and similar devices that carriers use to improve voice transmission capability have been removed. We found that because competitors cannot access all of the loop's native "features, functions, and capabilities" unless it has been stripped of all accreted devices, loop conditioning falls within the definition of the loop network element. Moreover, we concluded that although loops of 18,000 feet or shorter normally should not require voice-transmission enhancing devices, these devices are sometimes present on such loops and the incumbent LEC should be able to charge for conditioning such loops.[5] (Original Footnotes Omitted) (Emphasis Added)

These passages make clear the FCC's intent to allow ILECs to recover conditioning costs incurred at the request of a CLEC.

[4] Third Report and Order and Fourth Further Notice of Proposed Rulemaking, In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Released November 5, 1999, Paragraphs 192 and 193.

[5] Third Report and Order and Fourth Report and Order, In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 98-147 and CC Docket No. 96-98, Released December 9, 1999, Paragraph 82.

Q. DO LOOP CONDITIONING COSTS REFLECT THE CONSIDERATION OF EMBEDDED COSTS? (Murray Direct, p. 9)

A. No. Loop conditioning costs, as well as all other elements before this arbitration, reflect forward-looking costs. The activities specifically identified in the conditioning cost study, e.g., detachment of load coils, bridged taps, and repeaters, have not been "recorded in the incumbent LEC's books of accounts". (Murray Direct, p. 9, line 10) On the contrary, these costs reflect the activities that will happen on a going forward basis, if requested.

Q. DO THE FCC PRINCIPLES "ASSUME AWAY" THE EXISTING NETWORK AS DESCRIBED BY MS. MURRAY? (Murray Direct, p. 9)

A. No. Ms. Murray implies that the concepts espoused by the FCC ignore the existing network. With regard to xDSL type services, the FCC explicitly refers to costs for modifying that very existing network and concludes that the CLEC should bear the costs for making such modifications when they have requested them to be made. In addition, to complete the citation to the First Report and Order that Ms. Murray cited, in particular paragraph 685, the FCC states that, "[t]his benchmark of forward-looking cost and existing network design most closely represents the incremental costs that incumbents actually expect to incur in making network elements available to new entrants." (Emphasis added.)

Q. WHAT IS IMPORTANT ABOUT THE REFERENCE TO THE EXISTING NETWORK IN THIS STATEMENT?

A. While Ms. Murray contends that the concept of TELRIC is "almost totally divorced from the existing network configuration" (Murray Direct, p. 8), it is very clear that the FCC recognized that the cost of conditioning loops should reflect the existing network. It is also clear that the FCC certainly does not "divorce" its principles from the existing network when it has explicitly recognized that modifications to existing networks for the purposes of providing DSL type services will be borne by the CLEC making such request.

Q. WHAT IS THE RESULT OF TAKING MS. MURRAY'S ASSUMPTIONS OF IGNORING THE EXISTING NETWORK FOR LOOP CONDITIONING AND CHARGING NO COSTS FOR CONDITIONING?

A. The result of (1) assuming a theoretical network with fiber feeder at appropriate lengths and (2) not allowing for loop conditioning charges is that SWBT gets whipsawed by having to reflect the lower costs of a theoretical unbundled loop, while having to bear the cost of conditioning for services that Covad seeks to offer.

II. LOOP QUALIFICATION

Q. SHOULD SWBT'S COST STUDY FOR LOOP QUALIFICATION REFLECT LONG-RUN COSTS FOR AN EFFICIENT, FULLY MECHANIZED SYSTEM? (MURRAY DIRECT, PP. 4, 17)

A. The costs that SWBT has presented are the long run costs that reflect an efficient system. As Mr. Lube has described in his rebuttal testimony, SWBT will adopt a system permitting electronic access to SWBT's database used for loop qualification. However, all loop data will not be included in that database, and some information will require a manual look-up. SWBT's cost studies reflect a higher degree of mechanization than SWBT anticipates, based on the SWBT's Plan of Record (POR) that was filed with the FCC as a part of the SBC/Ameritech merger conditions. The FCC has determined that SWBT is only obligated to provide electronic access to loop qualification information that is on parity with the access provided to SBC's advanced services subsidiary.[6] As stated in the POR, SWBT will have access to actual loop length information by the end of 2000, but the database will not have full information on all loops. As discussed by Mr. Lube, SWBT is unlikely to achieve the 80% non-manual level assumed in SWBT's loop qualification cost study. Therefore, it would be improper to assume a database that is fully mechanized for the purposes of costing and pricing.

Q. IS THE SCOPE OF ACTIVITIES ACCOUNTED FOR IN SWBT'S LOOP QUALIFICATION STUDY BROADER THAN THE SCOPE OF ACTIVITIES THAT ARE APPROPRIATE TO A WHOLESALE ENVIRONMENT (MURRAY DIRECT, P.21)

A. No. When a CLEC requests a UNE loop, SWBT is required by the FCC to provide the CLEC with information regarding loop makeup including loop length, the presence of inhibitors on the loop, and "disturbers in the same or adjacent binder groups" that are likely to interfere with the provisioning of xDSL services.[7] Ms. Murray acknowledges this requirement in her testimony. The requirement to identify "disturbers" is a form of spectrum management that SWBT is required to conduct. However, this activity is distinct from the concept of Selective Feeder Separation (SFS) or Binder Group Management (BGM) that SWBT has abandoned and to which Ms. Murray refers as spectrum management (Murray Direct, p. 22).

Q. IS SWBT TRYING TO MAKE A "DETERMINATION" ABOUT THE SUITABILITY OF A LOOP (MURRAY DIRECT, P. 24)?

A. No. Under no circumstances will SWBT deny the provisioning of a loop to Covad so that Covad can deploy xDSL services.

[6] UNE Remand Order, Paragraph 429.

[7] UNE Remand Order, Paragraph 427.

III. LOOP CONDITIONING

Q. ARE THE COSTS FOR CONDITIONING ALREADY BUILT INTO SWBT'S PROPOSED RECURRING CHARGES FOR DSL-CAPABLE LOOPS? (MURRAY DIRECT, PP. 4, 31)

A. No. The recurring costs for DSL-capable loops are reflected in the prices that the Commission has set for the unbundled loops in Case Nos. TO-97-40 / TO-97-67. Contrary to Ms. Murray's assertion, the cost studies that support those unbundled loops include no activities for loop conditioning. More specifically, there are no costs for detaching load coils, bridged taps, or repeaters in any of those studies.

Q. WHILE LOOP CONDITIONING COSTS REFLECT DETACHING LOAD COILS, BRIDGED TAPS, OR REPEATERS, DO THE UNBUNDLED LOOP COST STUDIES INCLUDE ANY COST TO PLACE SUCH ITEMS?

A. Load coils are not included in the unbundled loop studies since fiber optics are used for loops that are 15,000 feet or greater.[8] Bridged taps are not an explicit item of the unbundled loop cost study but are used for the loops that are presented in that study. The loop study is partially a function of copper cable. Insofar as those cables utilize bridged taps to make the network more efficient,

[8] This is in contrast to Ms. Murray's network which would infer that fiber runs to 18,000 feet and ignores the inputs determined in Case Nos. TO-97-40 / TO-97-60.

then the loop cost study reflects those efficiencies. Repeaters are included for ISDN type unbundled loops, since in some cases a mid-span repeater will be required. However, there is no nonrecurring cost for removing mid-span repeaters.

Q. IF LOAD COILS ARE NOT INCLUDED IN THE UNBUNDLED LOOP COST STUDY, THEN WHY DOES SWBT INCLUDE THE COSTS TO REMOVE THOSE ITEMS WHEN ADDRESSING LOOP CONDITIONING? (MURRAY DIRECT, P. 32)

A. As I have described, the unbundled loop costs reflect fiber optics in lieu of copper and load coils for loop distances that would typically require those load coils. As Mr. Lube has indicated in his rebuttal testimony, SWBT does not detach load coils from its network unless there is a specific request for conditioning. If Covad requests that SWBT provision a loop for Covad, then the only reason SWBT would remove a load coil from that loop is if Covad requested such conditioning. This is an excellent example of cost causation, which is one of the underlying basis for forward looking cost studies, and reflects the intent of the FCC when it stated that the CLEC should compensate the ILEC for such conditioning.

Q. CONCERNING THE UNE REMAND ORDER AND THE MODIFIED PRICING RULES DISCUSSED BY MS. MURRAY (DIRECT PP. 32- 36), DO YOU BELIEVE THAT MS. MURRAY CORRECTLY INTERPRETS THE FCC'S INTENT?

A. No. Ms. Murray expends a great deal of effort trying to stitch together FCC language that she interprets as conclusive evidence that SWBT should not be able to recover conditioning costs, while ignoring the FCC's plain language establishing its intent. For example, Ms. Murray cites (Direct p. 35) paragraph 193 of the UNE Remand Order that states:

> We agree that networks built today normally should not require voice-transmission enhancing devices on loops of 18,000 feet or shorter. Nevertheless, the devices are sometimes present on such loops, and the incumbent LEC may incur costs in removing them. Thus, under our rules, the incumbent should be able to charge for conditioning such loops.

However, Ms. Murray then concludes that "the imposition of line `conditioning' charges for removal of such devices from loops of 18,000 feet or shorter would be inconsistent with the FCC's adopted TELRIC methodology." Clearly, the FCC's use of the term "such loops" in paragraph 193 refers to loops that are 18,000 feet or shorter. Therefore, the FCC explicitly contemplates the type of conditioning charges proposed by SWBT and finds that SWBT is entitled to recover those charges.

IV. ISDN LOOP COSTS

Q. ARE SWBT'S ISDN UNBUNDLED LOOP RATES TOO HIGH AS A RESULT OF INAPPROPRIATE INVESTMENTS USED IN SWBT'S COST STUDIES AS MS. MURRAY CLAIMS? (DIRECT, PP. 54-57)

A. No. SWBT's cost studies were conducted using the methodology and inputs that this Commission determined to be appropriate. Ms. Murray's allegation that SWBT's investment in BRI-related electronics are "excessively high" and are not forward-looking is incorrect. SWBT's investments reflect SWBT's vendor prices as of the date of the original unbundled loop study, September 1996. Furthermore, DLC is forward-looking for the mix of services that SWBT provides, as explained by Mr. Lube in his rebuttal testimony.

Q. WHAT OTHER FLAWS ARE THERE IN MS. MURRAY'S ANALYSIS OF LOOP RATES?

A. As Mr. Latham explains in his rebuttal testimony, SWBT's unbundled loop rates are to be set on the basis of costs. The Missouri Public Service Commission Staff spent approximately three months reviewing SWBT's models and inputs, and the Commission ordered input changes based on that review. From Ms. Murray's perspective, the fact that the Commission accepted SWBT's investments in Case Nos. TO-97-40 / TO-97-60 somehow implies a Commission oversight (Murray Direct, p. 56). Furthermore, it is inappropriate to simply pick one input out of the dozens of inputs that feed into an unbundled loop study and

say that the study is flawed based on that input. As pointed out by Mr. Latham in his rebuttal testimony, all inputs into that study would need to be reviewed were the Commission to determine that the ISDN loop rate required reexamination. Labor and other cost inputs have increased since that study was performed, and should be reexamined along with all other inputs.

V. Crossconnect Charges

Q. MS. MURRAY ASSERTS THAT SWBT'S CROSS-CONNECT STUDIES ARE INCONSISTENT. (MURRAY, DIRECT P. 57) IS THIS TRUE?

A. No. Ms. Murray's analysis of SWBT's cross-connect studies is not accurate because she misportrays the cost objects being considered in SWBT's cross-connect studies. Ms. Murray inaccurately claims that the nonrecurring cost for the shielded cross-connect represents the cost of running a single pair from the 100 pair tie cable between the main distributing frame (MDF) and intermediate distributing frame (IDF). However, this is not what the cost represents. The nonrecurring cost study for the shielded cross-connect represents (i) the technician's cost to place the jumper (item 2 in the diagram below) at the MDF between the loop and the tie cable to the IDF, (ii) the technician's cost to place the jumper (item 4 in the diagram below) at the IDF between the tie cable from the MDF and the collocation cable, and (iii) the testing of that circuit. There is

also a small amount of time included for reviewing orders, closing out orders, and disconnect activities.

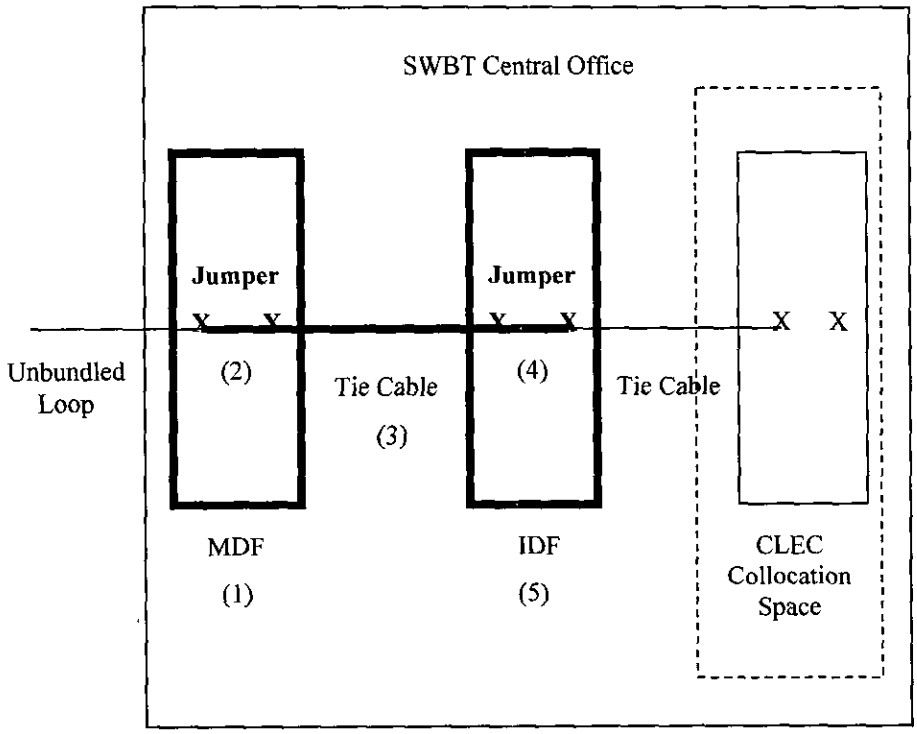
Q. PLEASE EXPLAIN HOW THE HOW THE COSTS FOR A CROSS-CONNECT ARE DEVELOPED IN THE CONTEXT OF PROVISIONING A LOOP.

A. In establishing the cost of a complete circuit from a customer premise to a CLECs collocation cage, there are three distinct cost studies involved. First, there is the UNE loop study. This study develops the recurring cost of the loop up to the vertical side of the main distributing frame (MDF) and the nonrecurring cost for a technician to establish a complete circuit in the field. Referring to the diagram below, the UNE loop study represents the costs up to the left (vertical) side of the MDF, identified as item (1). The UNE loop study does not include the cost of installing a jumper from the vertical side of the MDF to the horizontal side of the MDF as Ms. Murray claims (Direct, p. 59).

Second, there is the cross-connect study. The recurring cost study associated with this element establishes the recurring cost of a cross-connect from the MDF to the intermediate distributing frame (IDF). In the case of the shielded cross-connect the recurring costs are developed to recover the investment in cabling, cable racks, and connecting blocks. This recurring cost recovers this investment on an engineered, furnished, and installed (EF&I) basis (*i.e.*, the entire 100 pair cable is installed at one time). In the context of the diagram below, the recurring cost for the shielded cross connect recovers the cost of the tie cable labeled as

(3). As stated above, the nonrecurring cost study captures, among other things, the cost of having a technician complete the circuit by running the jumpers marked as (2) and (4) in the diagram.

The third study is the collocation cost study. This cost study captures, among other things, the costs for the cabling from the IDF to the CLEC's collocation cage. This is the tie cable that runs from the IDF, labeled as (5), to the CLECs collocation space.



Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.