

Attachment A to the February 2, 1998  
Letter to Mr. Angel Cartagena, FCC

### **Commitments Made by SWB During the January 20th Conference Call**

1. To consider local enhancements to the industry standard coding system approved by the TBWG for EDI data relating to the "CLEC Contracted Discount" (i.e., credits) applied to usage sensitive items such as directory assistance usage.

- SWB has enhanced its EDI processing to add a second 1000/234 pair within the same SI segment to convey an OC&C Description Code for the "CLEC Contracted Discount" which appears as a credit on the bill. A 1000 code of "OD" will be used in conjunction with a locally defined 234 code. A two page listing of these locally defined codes is available.
- This local enhancement to EDI will be effective with the February 1, 1998 bill period.
- Status: closed.

2. To consider a local enhancement to the industry standard coding system approved by the TBWG for EDI data relating to the "Service Establishment Charge."

- Programming changes were made on January 21, 1998, to provide an EDI 1000/234 pair of OC/H08 (One Time Installation) for "Service Establishment Charge(s)."
- Status: closed.

3. To consider a local enhancement to the industry standard coding system approved by the TBWG for EDI data to append multiple USOCs associated with the "Service Establishment Charge."

- Certain one time charges are not associated with ordering a particular service (which would generally have a USOC if there was an associated recurring charge), but with the act of placing the order for business or residence service. There is no USOC available to be provided with the EDI data for a substantial portion of each "Service Establishment Charge" billed. DTS should refer to the order placed and SWB's tariffs filed with the Oklahoma Corporation Commission for the amount of the retail Service Establishment Charge, then apply the CLEC contracted discount percent if it desires to verify a billed "Service Establishment Charge."

- As an alternative (not discussed during the call), SWB is investigating whether the EDI programs should be modified to suppress the single USOC which is currently being provided. If implemented, such a modification would result in the EDI data more closely resembling the paper bill.
- Status: subject to further investigation.

4. To consider resolution of a discrepancy in the EDI Service Order Activity code displayed in the TBWG category "One Time Service Charges or Credits for Service Removed" in the Other Charges & Credits section of the bill.

- Programming changes were made on January 25, 1998, to apply the Service Order Activity code based upon the service order number, rather than relying upon a table.
- Status: closed.

5. To consider providing the PID text description with Service Order Activity codes which are summarized to the industry standard TBWG code of OC/H01 and appear in the Other Charges & Credits section of the bill.

- Programming changes were made on January 25, 1998, to provide the PID text description which appears on the paper bill in the EDI data for each OC/H01 item requested by DTS.
- Status: closed.



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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

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In the Matter of

Application of SBC Communications  
Inc., Southwestern Bell Telephone  
Company, and Southwestern Bell  
Communications Services, Inc., d/b/a  
Southwestern Bell Long Distance, for  
Provision of In-Region, InterLATA  
Services in Oklahoma

CC Docket No. \_\_\_\_\_

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**AFFIDAVIT OF J. MICHAEL MOORE**

STATE OF Missouri     )  
                                  )§  
CITY OF St. Louis     )

I, J. Michael Moore, being first duly sworn upon oath, do hereby depose and state as follows:

***Qualifications***

1. My name is J. Michael Moore. I am District Manager-Cost Analysis at Southwestern Bell Telephone Company (SWBT). My business address is One Bell Center, Room 37-L-03, St. Louis, Missouri 63101.

2. I have been employed by SWBT since 1964. Between 1964 and 1988, I held a variety of positions in the Plant and Network Departments. These were primarily engineering

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positions involving Outside Plant and Central Office responsibilities. In April of 1988, I assumed my present position.

3. As for my education, I received a Bachelor of Science in Electrical Engineering degree from St. Louis University in 1964. I received my Masters in Business Administration degree from Rockhurst College in 1987. I am also a Registered Professional Engineer in the state of Missouri.

4. As District Manager-Cost Analysis I am responsible for developing cost methods that determine the costs incurred in providing Company services; supervising the production of cost studies; and analyzing cost study results. I have been principally responsible for the 1996 cost studies for network interconnection, unbundled network elements, and local transport and termination.

### *Purpose*

5. The purpose of my affidavit is to describe how SWBT has satisfied the development of costs in support of interconnection, unbundled network elements and reciprocal compensation provisions of 47 U.S.C. § 271(c)(2)(B) of the Telecommunications Act of 1996 (Act) and to demonstrate that these costs are forward-looking.

6. Specifically, my affidavit will demonstrate that the costs for unbundled network elements were developed in accordance with the Act, 47 U.S.C., § 251(c)(3) and 252(d)(1): local loop transmission from the central office to the customer's premises, unbundled from switching or other services; local transport from the trunk side of a wireline switch, unbundled from switching or other services; and local switching, unbundled from transport, local loop transmission, or other services. I will describe in broad terms, the basis for these cost studies, the methodology used to determine the costs for these elements, and will also explain why the

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results reflect only the incremental costs of providing those elements as opposed to a methodology which allows a firm to recover its actual costs, including joint and common costs. Finally, I will discuss the cost studies supporting SWBT's wholesale discount rate for resale services. To supplement my discussion, attached to the affidavit as Exhibit 1 is SWBT document, Description of Unbundled Network Element Cost Studies. This document describes in significant detail the methodology that SWBT has utilized to determine the costs of providing unbundled network elements (loops and switching) inclusive of a description of study methods, models, input data, and results. A second attachment, Exhibit 2, lists the forward-looking costs studies made available to the Oklahoma Corporation Commission (OCC) in other dockets.

### *Cost Methodology for Network Interconnection, Unbundled Network Elements, Local Transport and Termination, and Collocation.*

7. 47 U.S.C. § 252(d)(1) requires that prices for interconnection and unbundled network elements be "based upon the cost" of providing these elements, products and services, and "may include a reasonable profit." The Federal Communications Commission's (FCC's) First Report and Order on Local Competition, CC Docket 96-98 (Order) prescribed the methodology for identifying the appropriate cost on which these prices should be based. This methodology is the sum of the total element long run incremental cost (TELRIC) and a reasonable allocation of forward-looking common cost.

8. 47 U.S.C. § 252(d)(2) requires that the charges for local transport and termination recover the "costs" of transporting and terminating "calls that originate on the network facilities of the other carrier." The Order, in Paragraph 1056, specified these costs

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were to be determined in the same manner as the costs for network interconnection, unbundled network elements, and collocation.

9. After passage of the Act, and in anticipation of the FCC's pricing regulations, SWBT performed cost studies designed to determine the forward-looking economic costs of providing services to Competitive Local Exchange Carriers (CLECs). Following the issuance of the FCC's Local Competition First Report and Order and its accompanying regulations on August 8, 1996, SWBT revised its studies to ensure that they conformed both with the rules and policies of the OCC, and the rules and principles enunciated in the FCC's Order (which since have been vacated by the United States Court of Appeals for the Eighth Circuit). SWBT filed testimony with and provided supporting cost studies for unbundled network elements (UNEs) and resale discounts to the OCC in September 1996. The Oklahoma AT&T Arbitration docket, Cause No. PUD 960000218, was bifurcated; hearings on resale discounts were held in October 1996, while the unbundled network elements portion were pushed into 1998. The OCC issued an order in December 1996, ordering a 19.8% aggregate discount for all services. This ruling has not been appealed. The OCC proceeded to endorse SWBT's Oklahoma 271 filing, although Cox Telecom, a CLEC, opposed it on the grounds that the OCC had not yet approved permanent interconnection and UNE rates. As a result, Cause Nos. PUD 970000213 and PUD 970000442 were established to set permanent UNE and other interconnection rates. SWBT made its cost studies available in those dockets in July and filed testimony on August 29, 1997.

10. Two days of workshops were conducted in December 1997 in Oklahoma City by SWBT for the OCC Staff as well as for all parties. These workshops included an overview and comparison of telecommunications costing methodologies; embedded, fully distributed,

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direct, incremental, and total element long run incremental. Additionally, SWBT personnel led discussions on: cost factors and labor costs; how they are developed and applied in SWBT cost studies, unbundled network elements; definition and network configuration, and specific cost studies; unbundled local switching, loop and dedicated transport. A hearing in the cost docket is scheduled for March 1998.

11. The studies developed for these elements are forward-looking long run incremental cost studies considering the "total quantity of the facilities" as formerly required by 47 C.F.R. § 51.505(b). (See Exhibit 1, pg. 5, 1.3)

12. The technology chosen for these studies is based on efficient technology currently available based upon existing wire center locations as formerly required by 47 C.F.R. § 51.505(b)(1). For example, in the Operator Services studies forward-looking digital switch technology is utilized for Host and Remote switches at existing wire center locations. (See Exhibit 1, pg. 7, 2.1)

13. In a study (such as these undertaken by SWBT under the 1996 Act and the vacated FCC rules) which assumes only the use of efficient technology and the operating expenses of that technology, SWBT believes that the productivity improvement is already inherent in the calculation of costs. Productivity gains occur as a result of the deployment and utilization of new technology in place of old antiquated embedded technology. In fact, the productivity to be realized is "flash cut" into the study by assuming all old technology has been replaced by efficient forward-looking technology. Thus, there is no basis for additional productivity gain beyond that already reflected in the study.

14. To comply with paragraph 682 of the FCC's August 1996 Interconnection Order, and to attribute costs to specific elements to the greatest extent possible, SWBT

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measured actual space requirements in a sample of central offices reflecting forward-looking technologies, workforce deployment and spare part levels. The final results of this review showed that almost 90% of the sample central office space is in use currently. Less than 13 percent is available for growth. Therefore, SWBT's field studies show the digital building space is in productive use.

15. The Order provides for deriving per-unit costs "by dividing total costs associated with the element by a reasonable projection of the actual usage of the element." SWBT used current fills as a reasonable projection of actual usage because there are contradictory indications of how competition will affect fill. On one hand there is the view that other CLECs will offer new services that will stimulate demand for resold services or unbundled elements and, therefore, fill will increase. On the other hand there is the view that facility-based competitors will take current SWBT customers off of SWBT's network which will reduce fill. In addition, there is the hybrid scenario in which a CLEC will establish a presence in local markets through resale and then migrate to a facilities-based system. In the absence of any actual expectations from CLECs, SWBT is using the current patterns of use as fully representative of going forward conditions until other data becomes available which might alter those established patterns. (See Exhibit 1, pg. 8, 2.2)

16. The forward-looking cost of capital used in these studies reflected a conservative estimate of the risk characteristics of the increasingly competitive environment SWBT will confront in the coming months. The cost of capital was 10.69%, well below the authorized interstate level, despite increased business and financial risk due to competition. This cost of capital complies with 47 C.F.R § 51.505(b)(2).

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17. With respect to depreciation, we selected “economic depreciation rates” as required in 47 C.F.R § 51.505(b)(3) rather than using existing prescribed rates. Existing rates are based predominantly on retirements rather than on economic value and thus would not have met the criteria established in the FCC Interconnection Order.

18. SWBT's forward-looking cost studies for interconnection and unbundled network elements have been geographically deaveraged to account for the different costs of building and maintaining networks in different areas of varying population density. In Oklahoma, TELRIC studies for unbundled loop, common and dedicated transport, and local switching elements were geographically deaveraged based on three geographic zones in compliance with former 47 C.F.R § 51.507(f). In general, costs were deaveraged to align with an existing tariff Rate Group or combination of them. For example, switching costs for Group 1 offices are those offices included in tariff Rate Groups 1, 2, and 3. (See Exhibit 1, pg. 10, 3.1)

19. Common Costs were identified using SWBT's most recent historical costs as a basis for projecting its forward-looking common costs. The historical costs were adjusted to exclude retail costs and a portion of executive, planning, and general and administrative costs which arguably could be attributed to retail costs. (See Exhibit 1, pp. 56-57, 11.1-11.2)

20. SWBT's common cost study is based upon its current real world common costs. It adjusts them to remove a portion arguably attributed to retail-related activities. It then adds General Network Supervision and Wholesale Marketing and Service expenses to identify the total amount of common costs to be recovered from individual network elements. (See Exhibit 1, pp. 56-57, 11.1-11.2)

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21. SWBT's 1995 expenses reflect prior efforts to reduce costs as a result of realized efficiencies. Prior expense reduction programs occurred in 1984, 1985, 1986, 1989, 1991, and 1993. SWBT's common costs are already among the lowest of comparable telecommunications firms.<sup>1</sup> For instance, using SWBT's methodology and the FCC's Statistics of Communications Common Carriers for 1989-1995, SWBT's ratio of common costs to total expenses is the among the lowest for the three most recent years for which comparable figures are available.

22. To recover common costs an allocative ratio (allocator) was developed. Two steps were required in this calculation. First, all retail and wholesale Marketing and Services expenses plus company common costs were subtracted from total expenses. Secondly, the ratio of forward-looking common costs to the adjusted value determined in step one was calculated. (See Exhibit 1, pp. 56-57, 11.2)

23. Embedded costs are not part of the costs of unbundled network elements in conformity with vacated 47 C.F.R § 51.505(d)(1). Certain historical data was used in the development of factors in order to predict future relationships based on forward-looking investments. However, the investments and the costs developed from these investments were forward-looking. SWBT has not included the cost associated with older technology such as analog end office switches or analog carrier systems.

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<sup>1</sup> Ratio of Common Costs to Total Expenses

	1989	1990	1991	1992	1993	1994	1995
AT&T	0.1410	0.1535	0.1799	0.2773	0.2599	0.1964	
RBOCS EXCL SWBT	0.2199	0.2153	0.2376	0.1903	0.1825	0.2242	0.2290
SWBT	0.1831	0.2153	0.2096	0.1938	0.2075	0.1568	0.1603

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24. SWBT does examine current costs as a basis for its projections of future costs. For instance, SWBT looks at the current maintenance expenses involved with fiber facilities, to calculate future fiber maintenance costs. SWBT's forward-looking methodology considers current maintenance expenses for digital switches in estimating future digital switching expenses. From current expenses, factors are developed representing relationships for estimating future costs. These factors are then used with total forward-looking investment to calculate forward-looking costs. (See Exhibit 1, pg. 54, 10.1-10.2)

25. The studies for these elements do not include retail costs (marketing, billing, collection, etc.) associated with providing retail telecommunications services to subscribers who are not telecommunications carriers as formerly required by 47 C.F.R § 51.505(d)(2).

26. Consistent with former 47 C.F.R §51.505(d)(3) opportunity costs have not been included in the costs of unbundled elements.

27. Revenues to subsidize other services have not been included in the costs of these elements as was specified by 47 C.F.R §51.505(d)(4).

28. SWBT followed 47 C.F.R §51.511(a) by apportioning the cost over a reasonable projection of the sum of the total number of units of the element that we are likely to provide. Because of the uncertainty involved in determining future demand for unbundled elements, SWBT takes the reasonable approach of utilizing recent usage figures in projecting "the sum of the total number of units." (See Exhibit 1, pg. 5, 1.3)

29. All non-recurring charges are reflective of forward-looking economic costs in agreement with 47 C.F.R § 51.505. SWBT's non-recurring cost methodology for TELRIC studies utilizes the identical forward-looking methodology that is currently approved in Federal Access filings. The methodology allows for the recovery of costs associated with the time

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required to install and disconnect a service. Work groups involved in these tasks are identified. The time required to perform each function is identified and the labor rate associated with the employee performing the function is determined. The labor rate is multiplied by the labor time to arrive at the cost for performing the function. Work functions are then grouped by cost element and totaled to arrive at a forward-looking non-recurring cost per element.

30. If a state commission elects to have non-recurring charges recovered as a recurring rate, SWBT's approach would be to look at the average period of time customers keep their long distance service provider. Comparing the number of interlata PIC changes with the number of flat-rate residence (1FR) and flat-rate business (1FB) access lines for 1995 and 1996 indicates an average 4.54 percent of customers change their long distance carrier each month. This equates to a 22 month average as a reasonable period of time for developing a monthly charge to recover currently identified non-recurring costs. The 22 month average reflects that some people will change local service providers after a very short period of time while others will keep the same local service provider for extended periods. Furthermore, it should be recognized that this charge does not end after 22 months because all costs will not have been recovered from those customers who change service providers after a very short period of time thus those customers who keep the same provider for an extended period will continue to pay the monthly charge to offset this under recovery.

31. Unbundled elements do require different work functions than "POTS" loops because of their very nature as described below. Specifically, the (CPC) Circuit Provisioning Center is required to conduct work associated with unbundled loops. As opposed to a normal "POTS" loop, an unbundled loop requires a separate type of circuit inventorying. "POTS"

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loops that are comprised of line equipment, jumpers, switch line cards, etc., can be tracked under systems such as Loop Maintenance Operations Systems (LMOS) that use a telephone number identifier to track all associated equipment. Unbundled loops must be tracked in Trunk Integrated Record Keeping System (TIRKS) by a separate identifier, with additional information that allows SWBT to know which other unbundled components the loop connect with, if any. Without this database, SWBT cannot properly maintain the unbundled loop, never knowing where it resides, where it routes, what type it is, or to which other elements it connects. Regular "POTS" systems are simply not designed for unbundled loops. It is therefore imperative that CPC activities occur in order to provide unbundled loops. Simply put, there is just no currently available way around this type of involvement when provisioning unbundled loops and therefore the costs for such activities are properly recovered.

32. With regard to other non-recurring charges, some would argue that requests of SWBT will simply be to take a bundled service currently provided by SWBT to an existing end user and have SWBT provide the associated loop and switch port to a CLEC as individual unbundled elements. The Eighth Circuit held that requesting CLECs, rather than incumbent LECs, have the duty to combine network elements, even if those elements are already combined by the incumbent LEC. As such, costs have been developed by SWBT for stand-alone network elements that do not reflect the additional cost inherent in the combining of elements. In addition, a separate TELRIC study, Access to Unbundled Network Elements, provides costs associated with the various options employed to combine SWBT's unbundled network elements. The results of this study, in combination with TELRIC cost elements for cross-connect equipment and labor required to connect the Main Distribution Frame (MDF) to

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an Intermediate Distribution Frame (IDF), provide the total forward-looking costs associated with the combining of SWBT's unbundled network elements. (See Exhibit 3)

33. Unbundled elements will also be used by a CLEC in the provision of services to new telecommunication users. Some of these will be for basic local exchange service, and others will be for private line or access-like service. SWBT administrative routines must be (and are) capable of handling either situation. Routines for basic local exchange services are incapable of handling the varied facility and equipment configurations of unbundled elements. The varied requests of CLECs also may require the involvement of work groups who do not perform any work with basic local exchange service. The costs of these additional administrative requirements are reflected in SWBT's cost studies.

34. SWBT's practice is to recover Right-to-Use (RTU) or licensing fees in its non-recurring charges. However, because of SWBT's belief that these should be paid by the CLECs, as discussed by SWBT affiant, Michael Auinbauh, these fees were not included in the calculation for feature-related non-recurring charges associated with unbundled elements.

35. The units chosen corresponded to the discrete number of elements for flat-rate services, or the unit of measurement of the usage of the element for usage-based services as formerly required in 47 C.F.R § 51.511(b).

36. SWBT reflected in its cost studies currently engineered processes (manual as well as mechanized) because there is lack of information on the degree to which each of the CLECs will utilize mechanized interfaces; there is no sound basis upon which to estimate future work time.

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37. SWBT has performed a sensitivity analysis regarding the manner in which certain expenses are recovered via the maintenance and support asset cost factors to address the issue of "double counting". This analysis has indicated that the maintenance factor may actually be underestimating forward-looking maintenance costs, particularly the costs of loop maintenance. Specifically, there is a difference between the amount of expense currently expended by SWBT on loop maintenance and that calculated in its loop study, resulting in the TELRIC having an under-recovery of maintenance costs by more than 30% per loop.

38. Moreover, even if this under-recovery of maintenance costs did not exist, the "double counting" effect on SWBT's cost results would be minor. The maximum possible effect of the alleged "double counting" can be approximated by assuming, contrary to the facts, that all "M" or rearrangement and change expenses were related to service activation. This extreme and unrealistic assumption would lead to the conclusion that no more than approximately 2% of the monthly loop cost could be attributed to service activation, and the actual number would likely be less.

39. Some have argued that SWBT should make adjustments for prospective sharing/leasing of pole and conduit (infrastructure) investment. SWBT's pole factor development inherently recognizes the sharing of poles with the local electric company because it is based upon total aerial cable investment and only SWBT's pole investment. Thus, in those instances where SWBT uses the local electric company's poles, that pole investment is not included and the result is the factor reflects the amount of sharing with the electric company. With regards to leasing of poles by other entities, less than 5% of usable space on SWBT's poles is used by another entity. In the area of conduit sharing, less than 1% of the available duct feet is leased to another entity.

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40. Another argument is that future construction will allow for an increase in the sharing/leasing of infrastructure investment. It is possible that in those instances where new facilities are being placed by all parties that there will be an increase in sharing/leasing. But the reality is that for existing customer locations, the amount of sharing/leasing will not materially change from existing levels of sharing/leasing. This is because the typical sharers/lesers (i.e. electric, CATV and gas companies) will already have their infrastructures in place and will not be making decisions at the same time to place or replace new facilities. Thus, the expectation that a significant change from current sharing/leasing levels is simply not realistic.

41. There have been allegations made that SWBT fails to reflect the utilization of centralized spares in its cost studies. A 1996 comparison was made of the default settings in SCIS for spare packs in digital offices and the actual spares reflected in the Plug-In Inventory Control System/ Detailed Continuing Property Records (PICS/DCPR) system. The investment in PICS/DCPR was found to be less than 5% higher than what was reflected via SCIS.

42. Based on the foregoing, the costs provided by SWBT for unbundled network elements meet the requirements of the Act as well as the requirements of the FCC's now vacated pricing rules in its Interconnection Order.

### ***Wholesale Discount Rates for Resale Services***

43. The Act requires that wholesale rates be determined "on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided" 47 U.S.C. § 252(d)(3). The now-vacated interconnection regulations issued by the Federal Communications Commission on August 8, 1996 contain provisions amplifying and

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elaborating on this pricing standard. See, e.g., former 47 C.F.R. § 51.609. Following the issuance of those regulations, SWBT performed an avoided cost study that complied with the Commission's rules and principles. This study yielded service-specific discounts for each of the telecommunications services that the Act requires SWBT to make available for resale. SWBT used the results of this study to propose wholesale discounts in the AT&T arbitration. SWBT also proposed an aggregate discount of 17.5% based on the accounts outlined in the Order. The Oklahoma Corporation Commission, however, rejected SWBT's proposed service-specific discounts and adopted instead a single discount of 19.8% applicable to all services. Specific prices resulting from this across-the-board 19.8% discount have been incorporated in its Statement of Generally Available Terms and Conditions (STC).

### *Distribution of SWBT models and cost studies to CLECs*

44. During the past year, SWBT has provided AT&T, MCI and others with over ninety thousand pages of information in paper and electronic form, and held more than 13 days of training on its cost models and cost study methods in its five states. This information supplied by SWBT has included cost studies, workpapers, investment studies, vendor prices, computer models (i.e. Bellcore developed SCIS, NCAT, and CCSCIS as well as SWBT developed LOOPVST and COSTPROG models), computer inputs, and factor development studies. Having received these materials, ample information to determine the cost basis for SWBT's rates has been made available to CLECs. The CLECs have had access to more cost study information than SWBT has ever had to file with the FCC or other regulators to make cost determinations.

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The information contained in this affidavit is true and correct to the best of my knowledge and belief.

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Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 1998.

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My commission expires:

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EXHIBIT 1

# **Description of Unbundled Network Element Cost Studies**

Southwestern Bell Telephone Company  
St. Louis, Missouri

August 28, 1997

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## Introduction

### 1.1 Purpose of this Document

The purpose of this document is to describe the studies made by Southwestern Bell to determine the costs of providing unbundled network elements in compliance with the Federal Communications Commission order in CC Docket No. 96-98.<sup>1</sup> A network element is "a facility or equipment used in the provision of a telecommunications service."<sup>2</sup> Costs determined in these studies are used in establishing proposed unbundled network element prices. This document describes the study methods, models, input data and results.

### 1.2 Cost Study Requirements

According to the Final Rules of the FCC Order, "An incumbent LEC must prove to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element, using a cost study that complies with the methodology set forth in this section and 51.511 of this part." (Page B-30 - B-31, Appendix B of Order.)

The FCC defined *forward-looking economic costs* as the sum of *total element long-run incremental costs (TELRIC)*, plus a reasonable allocation of *forward-looking common costs*. The Order calls for local exchange carriers to develop cost studies which compute TELRICs for network elements, forward-looking common costs and a reasonable allocation scheme for common costs.

In specifying the costing methodology for TELRIC, the FCC laid out the following conditions for cost studies.

- *Efficient network configuration.* Studies are to reflect forward-looking, efficient network technologies and configurations recognizing existing wire center locations.
- *Forward-looking cost of capital.* Capital costs are to reflect the costs of debt and equity anticipated in the future.
- *Depreciation rates.* Depreciation expense is to be based on economic depreciation rates and the economic lives of telephone plant.

Forward-looking common costs are to reflect costs efficiently incurred in providing a group of elements or services and are to exclude retail costs.

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<sup>1</sup> CC Docket No. 96-98, "In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996," August 8, 1996.

<sup>2</sup> Page B-10, Final Rules, Appendix B of the FCC Order.

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The FCC ordered that certain factors not be considered in network element cost studies. These included embedded costs, retail costs and opportunity costs, as well as revenues to subsidize other services. These are the broad requirements specified by the FCC for cost studies. *Southwestern Bell's unbundled network element cost studies described in this document satisfy these requirements.*

### 1.3 Overview of Study Process

The Southwestern Bell cost study process has evolved over many years. Its purpose has been to determine the costs of offering new and existing services in order to set tariffed rates. The cost methodology which has been used is called *long run incremental costing*. This methodology determines the *direct costs* which will be incurred by Southwestern Bell in providing a service during a future planning period. These costs provide a floor for prices. They do not include costs which are common to services or network elements which must be recovered by prices which exceed incremental costs.<sup>3</sup>

The existing cost study process has been adapted to compute the costs of unbundled network elements consistent with the FCC requirements in CC Docket 96-98. For example, incremental costs are computed for the *total demand* of network elements, rather than an increment of the element. The study process also is modified to exclude certain operating expenses related to the retail marketing of services which would not apply to unbundled network elements.

However, many aspects of the study process remain the same.

- *Set of Cost Models.* Cost studies are performed using several cost models. Models such as LPVST and SCIS are used to compute the capital investment required to construct local loop facilities and switching systems, respectively. Another model, NCAT, is used to compute the tandem switching investment required to handle various tandem-routed calls through Southwestern Bell's switched network. CAPCOST is used to compute book depreciation, the cost of money and income taxes associated with plant investment. Another model called ACES is used to aggregate the results of previous models and cost calculations to calculate final network element costs. In addition to these "standard" cost models, cost analysts develop worksheets, tables and other costing tools as part of the costing process.
- *Team of Cost Analysts and Subject Matter Experts.* The cost study process involves several cost analysts with specialties in network cost analysis, capital cost development and other aspects of the studies. In addition, the studies require input from subject matter experts in marketing, engineering

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<sup>3</sup> The Company has performed other types of cost studies, such as embedded cost studies and fully distributed cost studies. These studies generally have been used to determine historical costs of broad service categories or to determine jurisdictional "revenue requirements."

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and operations. The team approach provides more realistic and more accurate estimates of costs.

- *Real Network Characteristics.* Cost studies are “forward-looking” in the sense that they calculate the cost to provide unbundled network elements using the latest plant technology for local loop facilities, switching, and other elements of the network. At the same time the studies reflect relevant aspects of the existing network, such as locations of central offices and customer premises, traffic characteristics, and others. Based on these characteristics which determine the network today and influence it in the future, the studies calculate the plant investment and operating costs which would be expected using forward-looking technologies to satisfy the demand for network elements.
- *Forward-Looking Cost Data.* Along with using forward-looking plant technologies, the studies use plant cost data (vendor prices, labor costs, etc.), capital cost factors and operating expenses which are reflective of these forward-looking technologies.
- *Quality Assurance.* Finally, an important part of the cost study process is “quality assurance.” Studies are reviewed several times for accuracy, consistency in the application of costing methods and cost data, and completeness.