

In Mr. Conwell's own direct testimony, he stated that he was in a better position to comment on the cost methods and models than the particular inputs. Mr. Conwell has not run some of SWBT's computer models whose logic he claims is reasonable, including ACES, COSTPROG and LPVST.

In Mr. Conwell's direct testimony, he states that he found SWBT's labor time estimates to be reasonable. In his rebuttal testimony, Mr. Conwell admits that commissions should not apply in the premium time loading calculation of the labor rates. On repeated questioning, Mr. Conwell would not say that the labor rates are reasonable if commissions are included.

In his direct testimony, Mr. Conwell attached a paper entitled "Description of Unbundled Network Element Cost Studies." The word "Oklahoma" does not appear in the actual text of the paper, only the table of contents and appendix. Mr. Conwell admitted that he prepared a prior version of the paper for another SWBT jurisdiction, and was asked to review and update the paper for Oklahoma. The paper was dated August 28, 1997. The paper does not reflect the July, 1997 change in the ACES methodology, and Mr. Conwell admitted he did not know of the change.

Mr. Conwell refused to comment on the propriety of the operator work seconds methodology whereby SWBT proposed to charge AT&T for SWBT's negotiation of operator services contracts with other LECs.

Mr. Conwell's paper states that the maintenance factor cost studies are performed annually using information from SWBT's financial accounting systems, although he admits that the Oklahoma maintenance factor is based on 1995 financial data.

Mr. Conwell admits that to run SWBT's support asset program, it is necessary to have data from all five SWBT states.

With regard to the cost of money stipulation of 10.0% reached by SWBT and AT&T, Mr. Conwell acknowledged that the CAPCOST program would need to be re-run with the 10.0% input. Mr. Conwell admitted that the CAPCOST program would need to be re-run if the OCC determined that the depreciation lives sponsored by SWBT witness Jane Knox were inappropriately long.

Mr. Conwell conceded that the maintenance factor calculation should be adjusted. SWBT used all of its M-code accounts in computing the maintenance factor, but in response to a RFI, SWBT performed a study that concluded that 37% of the total dollars in the M-code accounts actually reflect SWBT's own non-recurring activity. Accordingly, SWBT was asking CLECs to pay for its own non-recurring activity in application of the maintenance factor as originally computed. This adjustment was not taken into account in the Settlement between SWBT, Cox and Staff.

In his rebuttal testimony, Mr. Conwell admits that certain support asset costs are included in both labor rates and the support asset expense factor. Mr. Conwell further admits that radio equipment that is associated with buildings should be accounted for in the calculation of the building factor. SWBT did not do so. Mr. Conwell concedes that some of SWBT's computer investment are specifically identified in SWBT cost studies as well as accounted for in the

support asset expense factor. None of these adjustments were made prior to the Settlement between SWBT, Cox and Staff.

Mr. Conwell states in his rebuttal testimony that SWBT has used a forward-looking mix of technologies that will result in lower unit costs. Mr. Conwell has read SWBT witness Dale Lehman's testimony that says that the telecommunications industry is a declining cost industry. Yet SWBT does not apply a productivity offset to the inflation factor used in the cost studies.

Mr. Conwell testified that he believed that Telephone Plant Indices (TPI), used by SWBT in the development of its cost factors, are forward looking. Mr. Conwell admitted, however, that TPI is historical cost data. Mr. Conwell stated that the digital switching costs would increase based on SWBT's cost factor calculations using the TPI. Mr. Conwell was unaware, however, of the testimony of AT&T witness Cathy Petzinger which showed that digital switching costs are declining.

Finally, Mr. Conwell admitted that some of the \$74,190,912 in Oklahoma salary expense is double-counted in the development of the support asset factor and the labor rates.

11. Barbara A. Smith

In her direct testimony in PUD 97-213, SWBT witness Barbara A. Smith testified that she is Area Manager-Product Cost Development, Analysis and Regulatory for SWBT. In her testimony, she explained the process and proper methodology to use in developing costs for UNEs and for interconnection services. She also explained the cost studies which were used as the basis for pricing these UNEs.

UNBUNDLED NETWORK ELEMENT AND INTERCONNECTION SERVICE COST METHODOLOGY

Consistent with OAC 165:55-17-25, SWBT submitted Forward Looking Long Run Incremental Cost studies (referred to as TELRIC by the FCC) as a basis for the prices set in this proceeding. These studies are similar to traditional Long Run Incremental Cost (LRIC) studies SWBT has filed in Oklahoma in the past. The increment used in determining these costs is the entire increment of demand.

Under OAC 165:55-1-4, LRIC is defined as:

Long run incremental costs (LRIC) means the long run forward looking additional cost caused by providing all volume sensitive and volume insensitive inputs required to provide a service or network element offered as a service, using economically efficient current technology efficiently deployed. LRIC also equals the cost avoided, in the long run, when a service or network element offered as a service is no longer produced. LRIC excludes costs directly and solely attributable to the production of other services or network elements offered as services, and unattributable costs which are incurred in common for all the services supplied by the firm. The long run means a period long enough so that the cost estimates are based on the assumption that all inputs are variable.

A TELRIC study is a type of LRIC study used specifically to develop costs for respective UNEs. TELRIC costs are the foundation for prices set in a competitive market and provide incentives for competitive entry. The Telecommunications Act of 1996 requires that prices for UNEs must be "based on" their respective costs. However, there is an ongoing debate as to whether costs should be speculative or should be limited to those costs actually incurred by SWBT for the network it will unbundle.

SWBT submitted, in Mr. Cooper's testimony for this proceeding, actual embedded cost studies for three major UNEs. These studies can be used as a check for UNE costs developed by the forward looking cost models. For many years, SWBT has submitted LRIC studies in Oklahoma for tariff purposes. The TELRIC study used here is for UNE cost purposes specifically. These cost studies are based upon real network characteristics for Oklahoma.

The process by which SWBT's cost studies have been produced is:

- conceptually sound
- proven and reliable
- logical and understandable
- reflective of the cost of a real world network in terms of fundamental factors, such as location of customers and wire centers, length of subscriber loops, existing routes, and traffic patterns
- based on extensive documentation
- capable of being validated
- capable of easy staff review.

In calculating UNE costs, SWBT analysts answered the question "What would be the forward looking, long run incremental cost for a network element, recognizing SWBT's existing network, and using the most efficient currently available technology and operating practices?"

To develop the cost of a UNE, first SWBT determined the plant investment required to provide a network element. Plant investments were then divided by utilization to project a reasonable amount of filled plant expected for the contract period. Second, capital costs and operating expenses were applied to derive the annual costs.

SWBT used several models, including industry-standard models, to develop its cost studies for this proceeding. Models are necessary to reflect SWBT's current Oklahoma network. Indeed, each model used to develop the cost studies for this proceeding is specific for SWBT's Oklahoma operations.

Forward Looking Common Costs -- SWBT has developed a cost study that identifies forward looking common costs. Common costs are those that can not be attributed to any single element or service. These costs include wholesale marketing and services; network operations; general supervision; and executive, planning, and general administrative expenses. Common costs associated with wholesale functions are appropriate for recovery from UNEs. Retail costs should be excluded from the development of rates assessed to interconnecting carriers. However, common costs by their very nature are not directly assignable to resale

and wholesale functions. Therefore, a ratio was developed to remove the retail portion of the common costs from those applied to UNEs.

Individual Case Basis (ICB) pricing -- ICB pricing is used to calculate the specific cost of providing a service at a specific location or for a specific customer. Certain prices filed in July 1997, as part of this proceeding, were calculated using an ICB. Based on the unique characteristics of the service requested, SWBT network equipment and facility engineers identify the facilities and equipment required to provision the request. After the equipment and facilities investment is determined, annual cost factors (which are the same as non-ICB costs) are applied to develop annual costs and operating expenses. The major factors determining whether a service should be offered on an ICB are very low demand, the wide cost variation among customers who request the service, and the unique characteristics of the element or service requested by the customer.

UNBUNDLED NETWORK ELEMENT COST STUDIES

Ms. Smith's testimony described the following major UNE cost studies:

- The purpose of the local switching cost study is to identify the forward looking, cost-per-minute of use for local switching. Local switching provides the originating switching in the end office. This study includes all the costs for end office switching, except for the ports.
- A UNE port contains line or trunk termination equipment that provides access to the switch. Ports provide basic functionality of SWBT's network switching components. Ms. Smith sponsored several port cost studies to support pricing for this UNE.
- The unbundled common transport study develops the forward looking recurring costs for message traffic (i.e., local and toll calling). Costs are expressed per minute of calling. Common interoffice transport occurs when the local communications traffic of another local service provider (LSP) is combined with that of SWBT onto a local common transmission facility or trunk group.
- SS7 cost studies develop the forward looking recurring and nonrecurring costs associated with providing a STP port, SS7 transport, and services that are provided over the SS7 network architecture. A LSP needs SS7 functionality to perform trunk signaling between central offices to set up calls and establish communication paths.
- Operator services cost studies were conducted to determine pricing for those functions that will be available to LSPs that do not provide their own operator services.

Attached as Exhibit A to Ms. Smith's testimony was a chart summarizing these and other cost studies sponsored by Ms. Smith.

Ms. Smith also adopted the direct testimony of Linda L. Robey previously filed in PUD 97-213. Ms. Robey was Area Manager for Product Cost Development and Analysis for SWBT but has been reassigned to a special project and, as a result, was not available to testify. The testimony Ms. Smith adopted discussed the recurring and nonrecurring costs associated with (1) access to Operational Support Systems (OSS), (2) provisioning unbundled network elements (UNEs), (3) maintenance of service for UNEs and (4) time and material for repair of equipment provided by local service provider or end-users. In particular, this testimony covered the forward-looking, long run incremental cost studies for these elements. The methods employed in conducting these cost studies were previously described in Ms. Smith's testimony.

OPERATIONAL SUPPORT SYSTEMS (OSS) COST STUDY

This study identified the costs associated with providing access to SWBT's OSS for Local Service Providers (LSPs). The costs are specific and exclusive to the installation of the equipment and development of the interfaces that provide this access, as well as ongoing modification and support for this equipment and these interfaces. The various methods of access to OSS were described in detail by Elizabeth Ham in her direct testimony.

Ongoing costs in the OSS study include:

The Remote Access Facility (RAF) was created for use by LSPs as the means needed for their access to OSS. The RAF has two costs: (i) Cost Per Port, which is the cost associated with the investment in physical equipment necessary for LSPs to access SWBT's OSS; and (ii) Ongoing Cost Per Port, which is based on the number of hours required per month to support and maintain the physical ports.

Ongoing Operational Costs include the personnel required to provide software and hardware support and security maintenance for LSPs to access SWBT's OSS.

HelpDesk Costs include the costs to assist LSPs with network connectivity and application access problems or questions. The labor cost associated with staffing the HelpDesk operations comprise the cost per month for this service.

COST STUDY FOR UNE SERVICE ORDERS

This study identified the costs for the manual processing of a service order for unbundled network elements. (Sufficient data do not yet exist to study mechanized service order processing.) Covered by this study are service orders for (1) new service, (2) service disconnect, (3) a service change (a request to add or change a service on an existing UNE) and (4) a record change (a service change request that does not involve central office work, such as a suspend/restore order).

Service order costs for UNEs differ from the service order cost for retail services because the time needed for performance differs. For these studies, Southwestern Bell has identified specific work times and activities required to provide a service order specifically for a UNE. Nevertheless, in these studies, the company uses the same methodology to develop costs for UNEs that it uses to develop retail service order costs. This methodology calculates the time for

each activity involved multiplied by the labor rate of the appropriate employee handling the request.

COST STUDY FOR MAINTENANCE OF SERVICE

This study identified the costs to respond to trouble reports and to isolate and identify the trouble. The charges based on this cost study will apply when the LSP reports a suspected failure of a network element to the SWBT Local Operations Center and SWBT dispatches a technician to make repairs. The charge applies only if the trouble is not caused by SWBT's facilities or equipment. This cost study is structured the same as the Maintenance of Service in SWBT's Access Service Tariff P.C.C. No. 73.

COST STUDY FOR TIME AND MATERIAL SERVICE

This study identified costs to repair equipment provided by the LSP or its end user.

Attached as Exhibit B to Ms. Smith's testimony was a chart summarizing these and other cost studies sponsored by Ms. Robey.

In her rebuttal testimony in PUD 97-213 and 97-442, Ms. Smith addressed the direct testimony by AT&T witnesses Petzinger, Klick, Segura and Rhinehart, and she addressed the direct testimony filed by OCC Staff witnesses Hlavac and Krafcik. In her rebuttal testimony, Ms. Smith demonstrated that:

AT&T's inputs are incorrect and the OCC should determine that SWBT's inputs are correct and reasonable for calculating costs of UNE and interconnection services. AT&T's testimony is inconsistent with its agreement to adopt SWBT's models in this proceeding. Various changes AT&T suggests are changes to modeling itself and not solely input disagreements. OCC Staff inputs are less troubling, but they also incorporate incorrect assumptions regarding UNE cost calculations.

Fundamental difference is AT&T's substitution of "futuristic infrastructure" for existing network that will be unbundled. This difference manifests itself in various assumptions regarding IDLC, dedicated inside plant/dedicated outside plant, OSS fallout and copper fill and other equipment fill. AT&T's approach is incorrect because the 1996 Act requires determining the cost of SWBT network that will be unbundled, not some future proposed network.

I. UNBUNDLED LOCAL SWITCHING

Testimony -- SWBT has misused Switching Cost Information System ("SCIS") model to generate basic switching investments. Rebuttal -- AT&T is incorrect. Consistent with historical use of this model, SWBT used SCIS correctly to generate switching investments used for unbundled local switching study and unbundled port studies.

Testimony -- SWBT did not use correct discount. Recommends a discount used on initial switch pricing only. Rebuttal -- SWBT developed a reasonable method of computing switch discount based on a rating of growth and initial placements

where discounts used have come from signed contracts with its switch vendors. No basis provided for discount AT&T proposes.

Testimony -- SWBT methodology used to calculate future related hardware ("FRH") is not forward looking and majority of FRH is non-traffic sensitive ("NTS"). **Rebuttal** -- SWBT bases its report on continuing property records which is an inventory of all its equipment and central offices to calculate FRH. Information from this report has been adjusted to make FRH investment forward looking.

Testimony -- Getting started investment ("GSI") does not reflect local switch engineering practices. **Rebuttal** -- SWBT undertook validation to ensure correctly replicated SWBT Oklahoma digital switches.

Testimony -- Equipment included in GSI is NTS and should be recovered with port charge. **Rebuttal** -- This is a change to the SCIS model itself, not an input dispute. SWBT included all equipment needed to replicate switch in GSI as traffic sensitive investment. Treating it as traffic sensitive is appropriate because GSI equipment is driven by call processing.

A. SWBT's Switch Discounts Are Appropriate and Correct

Testimony -- AT&T claims that SWBT's discount must be based on initial switch pricing only. **Rebuttal** -- SCIS is programmed to use switch discounts as an input to model expressed as a percentage. The switch discount (system and volume) is the effective discount off the vendor's list price. Discount is based on 1997 (extended into 1998) signed agreements with specific switch vendors. Used signed vendor contracts for DMS100 and 5ESS switches to determine appropriate discounts for both initial placement of switch and additional growth jobs. OCC Staff (Hlavac) supports. Weighting these 2 types of discounts computed using 5.1% access line growth over a 9-year growth period based upon publicly reported historic experience. This approach is appropriate, as SWBT witness Deere discusses in his rebuttal testimony, because switches are purchased to meet initial demand and then grown at regular intervals (e.g., 2 year periods).

Testimony -- AT&T proposes discount methodology based on initial jobs only (no actual discount percentage proposed) and treats all investment as initial. Results in a lower discount. **Rebuttal** -- SCIS develops investment for existing demand which consists of switches in different life cycle stages. This approach accurately characterizes SWBT's network. Growth jobs for additional lines are then placed on average every 2 years until switch is replaced. Cannot physically "flash cut" and replace entire network, which is practical effect of what AT&T proposes by only using discounts received on initial switch replacement. Under AT&T's approach, SWBT would be required to base its cost as if all switches were being bid out at the same time. OCC Staff witness Hlavac agrees with SWBT.

Testimony -- OCC Staff (Hlavac) recommends increasing initial investment by adding in cost of first growth job at year 2. He expresses concerns with access line growth percentage used. **Rebuttal** -- Increasing initial investment will decrease switch fill factor, thereby increasing each element's overall cost. Switch vendors negotiate discounts based on number of initial lines and growth lines. Any shifting of growth lines to initial placement could affect discounts.

Testimony -- OCC Staff (Hlavac) recommends removing growth investment placed in year 9 because it would not be needed in last year of switch life. **Rebuttal** -- Growth lines still must be added in last year of life in order to meet demand for that year.

Testimony -- OCC Staff recommends using average of line growth for Oklahoma only. **Rebuttal** -- Access line growth used in discount calculation by SWBT was based upon access line growth for its 5-state area. This is appropriate because discounts are negotiated as system-wide discounts and not state-specific.

Testimony -- AT&T claims that merger with Pacific Bell should result in higher discounts than those currently used in local switching studies. OCC Staff concurs and recommends a 1% increase in initial discount and 3% increase in growth discount. **Rebuttal** -- Combining volumes of these 2 companies does not represent new revenues to switch manufacturers because both companies already have switch contracts with same vendors. No further discounts will be provided.

B. Minutes of Use in Local Switching Study

Testimony -- OCC Staff claims that SWBT should use a forward looking assumption for minutes of use ("MOU"). This revised assumption would result in increasing MOU by 11.2%. **Rebuttal** -- SWBT's assumption based on total local, toll and access MOU measured for 1996. These MOU reflect usage for switches in Oklahoma, some of which are new and some of which have been in service for a particular time and have had growth added. SCIS model switches based on current demand for each switch. This ensures that SCIS investment matches MOU. OCC Staff proposal is incorrect. If MOU are increased, there must be a corresponding increase in investment other than the processor to handle the additional MOU on the switch. Additional investment has not been included in unbundled local switching study.

C. Feature Related Hardware Methodology

Testimony -- AT&T criticizes SWBT's FRH methodology because it violates forward looking principle of a LRIC cost study. Dividing investment by forward looking total switch development invalidates the analysis. AT&T complains that SWBT should have used SCIS model to develop FRH cost. **Rebuttal** -- FRH includes hardware components needed to provide features (e.g., 3 port conference circuits needed to provide 3-way calling) which is not part of SCIS model office. Because FRH is part of total switch investment and not included within SCIS model office, costs were calculated outside that model. SWBT then added FRH to total switching investment. In addition, SWBT used its continuing property records ("CPR"), which is a system that keeps a record of physical inventory for each central office and includes prices paid for each price of equipment in that office as required under FCC rules. This hardware will be provisioned as part of the unbundled switching element. (SWBT found slight duplication of investments in FRH also included in SCIS but this equates to a less than 1% change in total local switching investment.) AT&T testimony incorrect because CPR data only use a starting point to develop FRH investment components, not the actual dollar amounts. A Current Cost/Book Cost Ratio then was applied to the FRH investment to convert it to current investment prices used in TELRIC. Current FRH investment then was divided by current total switch investment from SCIS. This is consistent with LRIC cost studies as substantiated in SWBT witness Dr.

Lehman's rebuttal testimony. Based upon this analysis, switch prices were not declining in the manner AT&T suggests.

Testimony -- AT&T used a FRH factor separately for traffic sensitive and NTS equipment. AT&T argues that some of the FRH is NTS and should not be recovered in local switching MOU charge. Rebuttal -- Issue is not an "input" disagreement. SWBT model platform already distinguishes between traffic sensitive and NTS. AT&T's change is a change in the model itself. As Mr. Deere says in his rebuttal testimony, local switching charge includes all switch feature capability, so it is consistent to have all FRH included as part of the local switching cost. Moreover, AT&T and SWBT agreed to use SWBT's cost methodology in this proceeding so this issue should no longer be subject to disputes as part of the model platform itself.

D. Getting Started Investment

Testimony -- AT&T states that SCIS comes already loaded with spares and the amount of spares in SWBT's SCIS runs should be reduced to account for their centralized warehousing. Accordingly, AT&T made an arbitrary 50% reduction to reduce the spares in each office. OCC Staff (Hlavac) recommends 25% reduction in spares instead of 50% reduction. Rebuttal -- The SCIS model office GSI is composed of 2 main categories of equipment: (i) central processor and related equipment; and (ii) various equipment to get switch operational. SCIS computes GSI for each switch, and this computation includes the initial investment for central processor and related equipment, maintenance and test equipment, spare components, etc. This is a model platform issue and not an input issue. Thus, raising it is contrary to the AT&T/SWBT agreement. Validation reviews have confirmed that amount of spares within SCIS is comparable to actual spares inventory in Oklahoma central offices. No factual basis for 50% reduction by AT&T or 25% reduction by OCC Staff.

Testimony -- AT&T claims it is inappropriate to include GSI and MOU costs. Rebuttal -- SCIS developed to ensure that investment of every switch service is fully identified and attributed to its users. This includes determining the investment associated with every "limiting resource" of the switch (e.g., lines, trunks, call capacity, memory). GSI attributed to "limiting resource" that would cause switch to exhaust. These activities ultimately limit its capacity. Classification of equipment as traffic sensitive or NTS should not determine its inclusion or exclusion from GSI. Rather, it should be driven by cost causation because, as more usage occurs, more processor capacity is utilized. AT&T view that processor investment is NTS violates cost causality. This same reasoning applies to other components of GSI, such as maintenance and test equipment. If the GSI components were considered volume insensitive, as AT&T suggests, they would become shared investments of the switch which then would be pushed down to the element level (unbundled local switching element). AT&T approach would result in no effective difference.

II. SWITCH PORT STUDIES

Testimony -- AT&T allocates GSI to the ports. It claims that GSI should be treated as NTS. Rebuttal -- GSI is included in MOU cost because it is investment that must be replicated to replace the switch. Characterizing it as traffic sensitive or NTS is irrelevant as to what is included in port cost study.

A port cost only should contain cost of terminating the line or trunk. All other components are part of local switching costs (including all usage and features). Even if AT&T were correct, cost would not be associated with the port but with the line itself. SWBT has a different purchasing method for ISDN, known as functional pricing. This pricing means that there is a stated price per line in the ISDN contract. There is no discount per se. SCIS only will accept a discount and not a price per line, so ISDN discount had to be derived based on functional price of the line for use in SCIS.

III. UNBUNDLED TANDEM SWITCHING COST STUDY

Testimony -- AT&T recommends applying switch discount developed in its testimony to unbundled tandem switching study. **Rebuttal** -- AT&T's approach is wrong. SWBT discounts applied within SCIS for tandem switching are the same discounts used for unbundled local switching.

Testimony -- OCC Staff recommends keeping GSI in MOU and allocating all GSI to the port. **Rebuttal** -- If GSI for tandems is allocated to the port, there is no tandem trunk port rate element to include the cost of the GSI for the tandems. Incorrect to allocate cost of tandems GSI to analog port line because it presents a unique problem of how to recover this cost. Tandem GSI is correctly identified now as part of the tandem MOU cost.

IV. SS7 SIGNALING STUDIES

Testimony -- AT&T witness Klick recommends changing link utilization for the Signal Transfer Point ("STP") to 40%. He also claims that SWBT conceded redundancy of STP is unnecessary in forward-looking environment. OCC Staff (Hlavac) also recommended a 40% STP utilization factor. **Rebuttal** -- Mr. Klick incorrectly changed utilization to reflect maximum of STP link utilization. SWBT used actual utilization of STP link in its study because it reflects the TELRIC requirement that costs of each element must be attributed to greatest extent. Spare capacity of link is attributable to that link, so its cost must be included in the cost of the link. Mr. Hlavac's recommendation appears to be based upon SWBT's response to a data request when it stated that maximum STP link utilization is 40% which is different than the optimal utilization at issue herein. Largest impact on utilization is FCC Order requiring placement of a pair of STPs in every LATA (instead of only in major metropolitan areas) to satisfy IXC interconnection requirements. Also, major goal of SS7 network is reliability. Excessive utilization means that SWBT will have unacceptable service requirements. High utilization must be balanced by necessity of getting all calls efficiently through the network. This balance in utilization was used in SWBT's studies. Redundancy is not an issue and was not discussed in my deposition testimony.

Testimony -- Mr. Klick states that SWBT used the medium size STP configuration instead of using a more economical large STP configuration. **Rebuttal** -- Mr. Klick incorrectly assumed SWBT, as it did do in other states, used the medium configuration instead of the large STP configuration. This is not the case. The SS7 studies provided to AT&T clearly show SWBT used the large STP configuration. (See CCSCIS STP Total Investment Report run dated 1-23-97, filed 7-14-97).

Testimony -- Mr. Klick states that the SCP used in SWBT's studies is outdated technology, violating LRIC principles. Rebuttal -- The SCP used in SWBT's study is not outdated technology. There is no current replacement for the existing SCP, which is manufactured by Digital Equipment Corporation ("DEC"). SWBT's SCP investment was based on DEC's list prices from 1995. A discount from the vendor contract then was applied to this price list. The next generation is called the Network Database which is not available for purchase today and is not part of SWBT's network.

Testimony -- Mr. Klick developed a discount to apply to the SCP equipment prices. This discount is based on a trending of SCP discounts from a historical period. Rebuttal -- Mr. Klick improperly extrapolated his discount based on the decline in DEC's SCP prices from 1992 to 1995. There is no evidence to prove that future discounts are indicative of discounts from this period of time.

V. OPERATOR SERVICES AND DIRECTORY ASSISTANCE

Testimony -- Mr. Klick recommends modifying the discount applied to the DMS100 switch prices for the operator services and DA studies. Rebuttal -- These recommendations are inappropriate because of the reasons stated above in response to AT&T's recommendation regarding switch discounts. SWBT's discounts are correct.

Testimony -- AT&T recommends revising the fill factors used in the operator services model to reflect maximum utilization. Rebuttal -- The fill factors used in SWBT's studies are based on the actual expected utilization of each piece of equipment consistent with applicable TELRIC costing requirements.

Testimony -- Mr. Klick characterizes fill factors in the operator services equipment as lower than should be expected. Rebuttal -- Three reasons contribute to the utilization level: (1) Service Control Unit ("SCU") only can be bought in a specific size, which will increase the spare capacity in cases where the SCU capacity does not meet call demand; (2) SCUs also are required for maintenance, which compounds the problem in areas where there is low utilization; (3) redundancy of SCUs is needed to meet service requirements and this must be balanced with the cost of spare capacity in the equipment. Furthermore, SCUs are deployed in pairs, like the STPs (as Mr. Deere discusses) so the maximum utilization for each SCU would be 35%.

Testimony -- Mr. Klick states that "an efficient provider of basic local exchange service would not install significant excess computer capacity up front, in anticipation of growth because expansion of computer capacity can occur as needed simply by adding cards or microchips." Rebuttal -- Mr. Klick incorrectly assumes this equipment is similar to computer equipment. This equipment only can be purchased in specific sizes and cannot be upgraded with cards or microchips.

Testimony -- Mr. Klick claims that application of a fill factor to operator services equipment is fundamentally flawed. Rebuttal -- Mr. Klick has confused the application of the fill factor to identify the spare capacity with the legitimate need to provide the equipment, even though the size of the equipment exceeds current demand. SWBT's application of the fill factor, based on current utilization, and its subsequent application to current investment, is the correct

method to identify spare capacity of the equipment and attribute it to the appropriate element.

Testimony -- AT&T excluded expenses associated with operator services methods/ training, operator services marketing, operator services facilities personnel activities and exchange carrier relations activities. It also removed all these operator expenses from the common cost allocator, which leaves them on the floor, (i.e. not included in any study). OCC Staff (Krafcik) recommends removing marketing expenses associated with operator services. **Rebuttal** -- It is incorrect to remove these expenses because they are all considered shared expenses of providing operator services (including implementation costs for providing these types of services to the CLECs). Removal of these items violates the TELRIC methodology principle which allows for shared expenses to be identified and pushed down to the element level.

Testimony -- OCC Staff questions the inclusion of the GHQ and the Oklahoma nonrecurring costs for the Branding Cost Study. **Rebuttal** -- Mr. Krafcik's questions are unjustified. The expenses included in the study represent the costs of implementing the service and training of operators within Oklahoma.

VI. OPERATIONS SUPPORT SYSTEMS AND MISCELLANEOUS STUDIES

Testimony -- AT&T removed the majority of equipment from the OSS study. **Rebuttal** -- Mr. Klick removed the equipment items in the study because they are part of the computer investment included in the support assets factor. The computer investment is correctly caused by and associated with the study. Mr. Hlavac appears to agree, since he recommends an adjustment to the support assets factor.

Testimony -- Mr. Klick proposed changes to the LIBD SMS cost study. He claimed that there is double counting because the computer investments in this study are included in the support assets factor. **Rebuttal** -- If the computer investment is removed from the support assets factor, the result would be de minimus. It is incorrect to remove this investment from the study.

Testimony (PUD-442 only) -- Mr. Klick proposes a change in the E911 switching investment. This change involves applying AT&T's switch discounts. **Rebuttal** -- There is no basis for the change as discussed above with respect to AT&T's proposed switch discounts. As SWBT witness Huelsing discusses in his testimony, there is a basis for the nonrecurring charges. The purpose of these charges is to recover the costs associated with providing E911.

Testimony (PUD-442 only) -- Mr. Klick recommends removing the management fee, eliminating the geographic zones for some of the costs, and eliminating the Commission Assessment (actually Other Taxes in Oklahoma) for the White Pages study. **Rebuttal** -- The management fee paid to Yellow Pages is a legitimate cost of the service and thus should be included in the cost of providing White Pages. The Other Taxes is assessed upon revenue. Since providing CLECs this service will generate revenues, the Other Taxes factor should apply.

Testimony (PUD-442 only) -- Mr. Klick proposes a small upfront Directory Listings charge. Each party should incur its own costs for providing daily updates for Directory Listings. **Rebuttal** -- Mr. Klick states that the upfront

cost should require very little labor effort or computer time. SWBT has identified the appropriate costs for this service.

VII. NONRECURRING COST STUDIES

Testimony -- At&T proposes nonrecurring costs in this proceeding which have different assumptions than SWBT nonrecurring cost studies regarding times for activities, forward looking operations support systems used, flow through and treatment of loops as POTS loops (not designed loops). **Rebuttal** -- AT&T has recalculated SWBT's nonrecurring costs based on the assumptions in Mr. Segura's testimony. AT&T's assumptions are based on the following fallacies:

Definition of Forward Looking Efficient Operations Support Systems
-- AT&T contends that SWBT's systems and practices are not forward looking. To the contrary, SWBT has based its nonrecurring costs on OSS and processes it expects to use for providing service to CLECs. In most cases, it is the same process used to provide service to SWBT retail customers.

Time Estimates -- AT&T generally disagrees with the time estimates for the nonrecurring studies, but its witness, Mr. Segura, acknowledges that material "default" values, not Oklahoma data, are used. Thus, it is not surprising that AT&T's time estimates represent unrealistically low expectations of the time needed for activities to provide UNES in Oklahoma.

Manual versus electronic process for preordering and ordering -- AT&T assumes a 98% flow through for all ordering, preordering. It extends this flow through value to all the back office legacy systems down stream from the ordering process. The 99% (referenced in Segura's testimony) flow through is only achieved with SWBT's EASE system which was developed based on existing flow through experienced by its trained, experienced service representatives. AT&T's use of this flow through number for nonrecurring costs is inappropriate because many of the processes do not flow through under any circumstances. Moreover, the processes that have some flow through would not be as high as 98%.

Loops as designed circuits -- AT&T contends that all POTS loops (i.e., 2 wire nondesigned loops) should be treated as "non designed." SWBT's process for provisioning a loop as a UNE requires that it be treated as a "designed" service.

Testimony -- AT&T and OCC Staff apply a 2% fallout (98% flow through) to all nonrecurring cost studies. **Rebuttal** -- AT&T agrees that all SWBT retail services or UNES do not flow through at 98%. AT&T witness Segura stated that it only applied to "POTS" service (a 2-wire residence service). Segura clearly distinguishes between POTS and designed services, which he said would have a higher fallout rate. The 2% fallout percentage for use in any study is inappropriate. AT&T should not have applied the 2% fallout to the following Oklahoma cost studies: Unbundled Network Element Manual Service Order - Complex; BRI Port Features Nonrecurring Cost Study; Unbundled Voice Grade Interoffice

Transport Cost Study; and Unbundled Local Switching Centrex Like Features -- Analog. Similarly, OCC Staff fails to document this 2% fallout value.

Testimony -- OCC Staff (Krafcik) had concerns with SWBT's nonrecurring studies: (i) instructions given to the study participants were not forward looking; (ii) time estimates came only from one person and there were no time and motion studies conducted, or a panel of experts to provide multiple viewpoints; and (iii) SWBT did not indicate that it took any other efforts to verify the activity estimates provided. Rebuttal -- These concerns are unjustified. Each cost analyst participates in a product team for the service under study and that product team is made up of all the individuals responsible for implementing and managing the UNE. All participants have the same common understanding before cost study assumptions are made. Forward looking assumptions regarding the type of systems used and operating practices would have been considered if applicable data were available. Forward looking does not have to assume some system or operating practice that could or should be used, it can be the existing system and operating practices which SWBT assumes in its nonrecurring cost studies. SWBT cannot provide nonrecurring activities via systems that are not used in its own network -- an assumption both AT&T and Mr. Krafcik use in their 2% recommendation. SWBT is obligated to unbundle its current network and determine the forward looking cost of that network, which it has done in its nonrecurring studies. Contrary to OCC Staff generalizations, SWBT's nonrecurring time estimates were based on a variety of data (e.g., call activity reports, field personnel surveys, and other empirical Oklahoma-based sources). Mr. Krafcik incorrectly recommended averaging SWBT's times with AT&T's times, in cases where they differ by 70% or more. SWBT's time estimates were based on assumptions and specific knowledge of its own operations and the time it takes to perform these operations. They were validated by cost analysis comparing the times to prior cost studies and services with similar assumptions. AT&T's estimates were provided, without any support, by an undefined "national team."

Testimony -- OCC Staff claims "that each party has a natural incentive to provide either a high or low activity time estimate." Rebuttal -- SWBT does not have such an incentive with regard to its time estimates. Many time estimates for the UNEs were based on data provided for SWBT's retail services. Most of these retail services are competitive, so it would not benefit SWBT to provide high time estimates. The same principal applies to the UNE time estimates.

A. UNE Manual Service Order Cost Study

Testimony -- AT&T criticizes SWBT's Manual UNE Service Order Cost study for using excessive "time" estimates. Rebuttal -- The manual cost is applicable to all service orders not submitted by an electronic delivery to the LSC (e.g., fax or overnight mail), where its service representative must validate the order and then type the order into SORD. It also applies to UNEs where there is no mechanized process for entering orders. Not all ordering is electronic because only limited services meet industry standards and have an electronic order delivery process. The UNE Manual Service Order Cost Study includes the following activities, which justify the times reported: SWBT service representative receives Local Service Request ("LSR"), logs it in, reviews requested requirements, validates data, inputs applicable data into appropriate fields, and manually confirms order entry. In addition to these activities reflected in the cost study, there are other activities performed which are not reflected but also

support the times reported. These activities include rectifying incomplete or erroneous data or handling maintenance requirements. All SWBT's OSS will be available and will be used in provisioning UNE orders. In the AT&T 2nd arbitration (PUD 175), the Commission ruled that SWBT is under no obligation to create OSS which it does not currently have in place for AT&T or other CLECs. The types of OSS flow through functionality assumed by AT&T do not exist in the SWBT network or in its UNE inventory. The time estimates used in the UNE Manual Service Order Cost Study were estimated by subject matter experts ("SMEs") providing the service order methods and service order format to the LSC. Ms. Smith independently validated the time in the study based on conversations with service representatives and first level managers at the LSC.

Testimony -- AT&T assumed a 2% fallout for the simple and the complex services identified in SWBT's UNE Manual Service Order Cost study. **Rebuttal** -- According to AT&T witness Segura, the 2% fallout should not apply to the complex services. Thus, AT&T incorrectly applied the 2% fallout in the study. Complex SWBT retail services do not flow through at this high rate and are not expected to do so in the near future, if at all. The 2% fallout is also unrealistically low for the simple UNE Manual Service Order Cost Study.

Testimony -- OCC Staff (Krafcik) states that it is appropriate to assume a mechanized ordering process for all network elements. **Rebuttal** -- This assumption is wrong. SWBT is in the process of developing mechanized order generators, which will accept an order electronically from AT&T. However, all UNE orders cannot be accepted and flowed through electronically. This is also true for a number of SWBT's retail services that are so complex they must be entered manually for the service order process (e.g., DS-1). It is reasonable to expect that the majority of orders for UNEs also will be delivered manually. Furthermore, there are existing CLECs which find it more cost effective to process their orders manually.

Testimony -- Both AT&T and OCC Staff recommend eliminating the typing time for the manual service order. **Rebuttal** -- Both AT&T and Mr. Krafcik are under the impression that the service representative at the LSC conducts the validation and the typing at the same time. This is not true.

B. UNE Mechanized Service Order Cost

Testimony -- AT&T criticizes SWBT's \$5.00 mechanized service order charge and recommends OCC adoption of its own study instead. **Rebuttal** -- At the time SWBT submitted cost studies in this case, there were no methods in place to process a mechanized service order for UNEs. Nor were sufficient data available to develop a cost study. More reliable data are needed before an acceptable cost study should be done. AT&T's substitute cost study is unacceptable. As detailed in SWBT witness Aulinbauh's testimony, AT&T's mechanized service order costs (\$1.50 and \$2.16) are based on a major assumption of a 2% fall out rate applied to all UNEs for the time needed to validate and type a manual service order. The 2% fall out is unrealistically low, based on the high current fallout of orders and the number of repeat errors submitted on the mechanized order. SWBT has provided documentation that the fall out rate is higher than 2% (i.e., evidence from LSC tracking orders and fallout to meet staffing requirements). In addition, data from IXC access services provide useful comparison data, which support SWBT's higher fall out rate. The fall out rate will not necessarily

decrease as the CLEC service representatives gain more experience. Even though SWBT cannot provide a specific cost study for a mechanized UNE service order, based on the manual study current fallout and the amount of time currently spent to process a manual service, the cost can be estimated to be above \$5.00. This is because the fall out will require manual intervention. However, electronic delivery edits lessen the errors that might otherwise occur. Thus, manual intervention should be less, but still required and substantial. Even for electronic delivery, service reps will be required to manually enter the order (cost of typing, about 30%, of the total order cost) irrespective of fall out orders.

C. BRI Port and Port Features Nonrecurring Cost Study

Testimony -- AT&T included cost of only a 2% fallout for RCMAC (Recent Change Memory Administration Center, which is responsible for inputting translations to the switch for lines) time in both the BRI Port study and the BRI features study. Mr. Krafcik also applied the 2% fallout to the BRI Nonrecurring Features Cost Study. **Rebuttal** -- The changes AT&T made to the nonrecurring study for the BRI Port were unnecessary because this study was revised to remove all nonrecurring costs associated with the port. AT&T and OCC Staff relied upon the 2% fallout assumptions supported by Mr. Segura's testimony, but he stated that the 2% fallout only applied to residential POTS services. This fallout does not apply at all because the BRI features do not have flow through and incur the costs of a manual process.

D. PRI Port and PRI Port Features Nonrecurring Cost Study

Testimony -- In the PRI Port nonrecurring study, AT&T increased the hours for the translations preparation ("TXC") for both first and additional, but it removed the time for translations implementation ("SCC"). In the PRI Port Features Cost Study, AT&T used the same TXC time but reduced the SCC time by half. Mr. Krafcik recommends using non-craft wage rate and reduced time. He also recommends applying the 2% fallout. **Rebuttal** -- This reduction of SCC time for the PRI Port Features Cost Study is inconsistent. AT&T does not provide adequate justification for this different treatment. SWBT's approach, however, is fully supported. Time estimates were provided by the SMEs who actually supervise and do translations work. The TXC and SCC groups are both needed to ensure that the order is taken and entered correctly. The 2% fallout should not apply to PRI based on Mr. Segura's explanation (i.e., POTS only) and based on the fact that PRI does not flow through at all for SWBT's retail customers.

E. Analog Line Side Port Nonrecurring Cost Study

Testimony -- AT&T increased the minutes per order but applied a 2% fallout for manual intervention versus SWBT's fallout percentage. Mr. Krafcik supports SWBT's labor time, but applies the 2% fallout percentage. **Rebuttal** -- Again AT&T and OCC Staff applied the 2% fallout uniformly to every study, whether or not there actually is flow through once the order is entered. In this case, the majority of SWBT's orders for an analog line do flow through, but not at the high level AT&T or OCC Staff suggests.

F. DID Nonrecurring Cost Study

Testimony -- AT&T reduced the times for the TXC, SCC, Trunking and RCMAC for the 5ESS and then only included times for the TXC and SCC in computing the costs for the DMS100. The times are adjusted by 2% fallout. Mr. Krafcik recommends averaging the activity time between the amount proffered by SWBT and by AT&T, zeroing out the TXC management activity and applying the 2% fallout. **Rebuttal** -- AT&T's different treatment of times for the 5ESS and for the DMS100 switches is not justified or documented. It inconsistently has eliminated work groups and removed some times altogether. The 2% fallout is inappropriate for this study because there is currently no flow through for SWBT's DID service and none is expected for the UNE. The complexity of the service always requires manual intervention in ordering and provisioning.

G. 2-Wire Analog Trunk Port Nonrecurring Cost Study

Testimony -- The AT&T 2-Wire Analog Trunk Port Nonrecurring Cost Study used different switch weightings (used to weight the investments between 5ESS and DMS100). Mr. Krafcik recommends removing the TXC time, averaging the times of SWBT and AT&T, and applying the 2% fallout. **Rebuttal** -- AT&T's switch weightings are from the wrong state. All pages in its study had "Texas" headings even though the Oklahoma switch weightings were part of the documentation provided. The "Other Taxes" amount was also input incorrectly. These revisions are incorrect because the TXC time is needed to successfully complete the translation. Averaging the times is totally inappropriate because SWBT's times are based on actual SWBT activity, not on a "national team" estimate. The 2% fallout is incorrect because this service does not flow through at this rate.

H. Digital DS1 Trunk Port Nonrecurring Cost Study

Testimony -- AT&T's Digital DS1 Trunk Port Nonrecurring Cost Study used different switch weightings. Mr. Krafcik recommends zeroing out the procurement time and applying the 2% fallout. **Rebuttal** -- AT&T once again used the switch weightings from Texas even though SWBT provided the Oklahoma switch weightings in the backup documentation. AT&T assumed the only department involved in providing this service would be the Circuit Provisioning Center, and then only when the order fell out, again at the 2% rate. The complexity of the service requires manual intervention in ordering and provisioning from other departments, which SWBT included in its study. The 2% fallout again is incorrect because this service does not flow through at this rate.

I. Unbundled Local Switching Centrex Like Features - ISDN and Analog Nonrecurring Cost Study

Testimony -- AT&T used the SWBT cost study for ISDN and Analog nonrecurring costs filed on July 14, 1997, to revise its inputs. It reduced the time estimates, revised the labor rates, and applied the 2% fallout rate to each element. Mr. Krafcik recommends removing the network sales support and applying the 2% fallout to all features. **Rebuttal** -- This July 14, 1997, study was revised and refiled in Ms. Smith's November 29, 1997, supplemental testimony. This revision clearly was explained in Ms. Smith's December 3, 1997, deposition. AT&T reduced the time estimates based upon the wrong study for all the inputs. Ms. Smith is unclear about the labor rates used in this study because the

calculations do not match the results. On the results sheet, there are features which are not offered in Oklahoma. Since this problem has occurred in other nonrecurring studies discussed herein, AT&T erroneously must have used the studies for a different state and simply substituted Oklahoma labor rates. The two state studies are, of course, different, not only because of the labor rates, but also because they apply different assumptions. AT&T reduced the TXC and SCC times significantly for all features except Distinctive Ringing and Call Pickup. There was no documentation for the time estimates included in the AT&T study. Mr. Krafcik incorrectly assumed that the network sales support is a retail cost. SWBT will incur wholesale marketing expenses associated with providing UNES to CLECs and this expense should be included in the cost of service. The 2% fallout is inappropriate because Centrex service currently does not flow through as AT&T assumes.

J. SS7 Nonrecurring Cost Studies

Testimony -- AT&T revised the nonrecurring STP Port study by reducing the translations time for the STP port termination to 1 hour. It removed the disconnect time for the STP port and the translations time for the signaling point code addition. For the STP Port, Mr. Krafcik recommends removing the External Relations time from the studies and averaging the times between AT&T's and SWBT's studies. For the STP link nonrecurring costs, he recommends applying the 2% fallout. **Rebuttal** -- No rationale was provided by AT&T for reducing the time. Mr. Krafcik's recommendation to average the time is invalid because SWBT's time is based on actual experience, whereas AT&T's time estimate is based on an undefined "national team." The 2% fallout never would apply to these nonrecurring activities because they always are conducted manually.

K. Time and Materials and Maintenance of Service (Cause 442 only)

Testimony -- For the Maintenance of Service study, AT&T removes travel time and close out time. AT&T also assumes a totally mechanized process for all trouble reporting. Thus, it removes customer services representative labor hours. AT&T makes the same revisions to the Time and Materials study. OCC Staff recommended removing the computer time, modifying the customer service time with the 2% fall out, and removing the premium time expenses from the basic labor rate. **Rebuttal** -- All the proposed changes are unacceptable, except revising the labor rate to remove premium time and revising the travel time for Time and Materials. Under the Maintenance of Service scenario, the technician's time does not begin until work is started at the end user's premises. Travel costs are appropriately included in the first half hour. Under time and materials, the customer is billed for time starting when the technician picks up the trouble report. In this case, travel time should not be included in the first half hour. Regarding the close out time, the technician is not "on the clock" when the ticket is closed out and this cost is appropriately reflected in the first half hour. The mechanized process assumption and the 2% fall out is inappropriate because UNE trouble reporting will not have 98% flow through. SWBT assumed the same fall out in the study as it does for its own customers.

VIII. FORWARD LOOKING COMMON COSTS

Testimony -- AT&T witness Rhinehart proposes a number of reductions to the common cost allocator proposed by SWBT. These reductions include the operator

services accounts being avoided at a 100% rate instead of the OCC -- ordered 10% rate. Rebuttal -- As Dr. Lehman demonstrates in his rebuttal testimony, Mr. Rhinehart's revisions are based on speculation and false assumption. SWBT accounted for the exclusion of retail avoided costs in its common cost study. This exclusion was based on the FCC's presumption of avoided costs, which removed the retail portion of the accounts in the following percentages. Also included are the assumptions for the avoided cost study for resale approved by the OCC.

	SWBT	OCC
Account 6611 Product Management	90%	25%
Account 6612 Sales	90%	90%
Account 6613 Advertising	90%	70%
Account 6621 Call Completion	100%	10%
Account 6622 Number Services	100%	10%
Account 6623 Customer Services	90%	90%

Mr. Rhinehart assumed the avoided cost percentages ordered by the OCC to develop the resale avoided cost discount percentage, with one exception. He assumed the operator services accounts 6621 and 6622 to be avoided at 100% instead of the 10% ordered by the OCC. Mr. Rhinehart contended that the Commission assumed the 10% avoided for the operator services accounts because there was a continued need for white pages production. He also stated that the interconnection agreements include separate and distinct prices to be paid for operator services and white pages production, so the costs cannot be viewed as common costs and they should be removed from the computations. He then replaced the Commission approved 10% with an assumption avoided for the 6621 and 6622 accounts. These assumptions are not justified or consistent with the OCC's rulings. If the OCC order is used to calculate the operator services costs, there are costs that are considered common in addition to white pages (e.g., DA calls). Also Mr. Klick has removed a number of volume insensitive expenses from the operator services studies, which are booked to accounts 6621 and 6622. AT&T now improperly has removed these expenses from both the operator services studies and the common cost study.

Testimony -- Mr. Rhinehart implies that SWBT's forward looking common costs include service order costs that are being charged separately in this case. Rebuttal -- Mr. Rhinehart is wrong. It is true that service order expenses are booked to Account 6623 Customer Services, but the expenses in the forward looking common costs study are based on 1995 data, before any expenses were incurred for wholesale expenses attributable to CLECs. Wholesale service order expenses were included in account 6623 in 1995, but these service order expenses are for IXCs ordering access services from SWBT. In addition to these expenses, SWBT will incur, and is incurring, additional expenses for the service representatives in the LSC to take orders from the CLECs. Therefore, SWBT appropriately has reflected the correct amount of expenses for this account.

In her direct testimony in PUD 97-442, Ms. Smith explained the process and proper methodology to develop costs for interconnection services. She also explained the cost studies which were used as the basis for pricing these

interconnection services. Although many of the cost studies Ms. Smith presents here are different from those presented in Cause No. PUD 97-213, the cost study methodologies she described in PUD-442 are the same as those used there.

INTERCONNECTION SERVICE COST STUDIES

Ms. Smith's testimony described the following specific cost studies for pricing interconnection services:

- White Pages For Others By Geographic Groups Forward Looking LRIC
- Directory Assistance Call Completion
- Directory Assistance Listing LRIC
- Local Service Provider Emergency Service Contact for Non-Published Service Forward Looking LRIC
- Branding for Resellers
- Branding for Facility Based Providers
- External Rates/Reference - Resellers Forward Looking LRIC
- External Rates/Reference - Facility Based Providers Forward Looking LRIC
- Interim Number Portability
- Local Switching
- Tandem Switching Usage
- Unbundled Common Transport
- Operator Work Seconds
- Local and IntraLATA Operator Assistance Fully Automated Call
- Directory Assistance
- Forward-Looking Common Costs

Attached as Exhibit A to her testimony was a chart summarizing these cost studies sponsored by Ms. Smith.

Ms. Smith also adopted the direct testimony of Linda L. Robey previously filed in this cause. The Robey testimony that Ms. Smith adopted discussed the recurring and nonrecurring costs associated with (1) 911 Emergency Number System Interconnection, (2) Customer Change Charges, and (3) Operational Support Systems. In particular, this testimony covered the forward-looking, long run incremental cost studies for these elements. The methods employed in conducting

these cost studies were the same as those previously described in Ms. Smith's testimony.

911 EMERGENCY NUMBER SYSTEM INTERCONNECTION

As described by Mr. Deere, SWBT's 911 system serves various public service agencies that answer emergency calls. Ms. Robey presented a series of cost studies to support the forward-looking LRIC of interconnection by CLECs with this system. A design depicting the forward-looking network components necessary for the 911 system was created and the cost relating to its components (such as the computers, databases, multiplexers and switching equipment) was developed. Costs also were developed to match the various 911 feature packages used by SWBT in the particular communities involved. These features, described in detail by Mr. Deere's testimony, are:

- (1) Automatic Number Identification (identifies to the answering public service agency the number calling 911);
- (2) Selective Routing (used where necessary to ensure that the proper public service agency receives a 911 call);
- (3) Automatic Location Identification (identifies to the answering public service agency the location of the number calling 911); and
- (4) various combinations of these features.

A separate study was conducted to identify non-recurring costs relating to the feature packages used in the system. These are primarily labor costs in setting up the interconnection.

Because SWBT's emergency network system covers a four state area, the costs were weighted by state so that only the Oklahoma costs were included in the final costs developed for this proceeding.

CUSTOMER CHANGE CHARGES

This study identified the costs for a manual processing of converting a SWBT customer to a CLEC's resale customer. At the present time, sufficient data do not exist to conduct a study of processing these conversions electronically. The study represents the cost for SWBT manually to receive and process CLEC orders and to enter them into SWBT's systems. Two types of conversions were included in the study. A "simple" conversion involves converting a resale customer with traditional exchange service. A "complex" conversion involves converting a resale customer with a complex service, such as PLEXAR. The costs included in these studies are primarily the labor activities needed to process the appropriate orders for either simple or complex services.

OPERATION SUPPORT SYSTEMS (OSS)

This study identified the costs associated with providing access to SWBT's OSS by CLECs. This cost study is identical to that presented for the same purpose in PUD-213 and summarized in Ms. Smith's testimony.

Attached as Exhibit B to Ms. Smith's testimony was a chart summarizing these and other cost studies sponsored by Ms. Robey.

Summary of Cross-Examination of Barbara A. Smith

Ms. Smith of SWBT sponsored many of the cost studies filed by SWBT in these dockets. Ms. Smith contended that these cost studies comply with the Oklahoma Long Run Incremental Cost rule that is in place in Oklahoma and comply with the FCC's definition and interpretation of Total Element Long Run Incremental Cost ("TELRIC") as set forth in the FCC's First Report and Order in Docket 96-98. A properly conducted LRIC cost study examines costs using forward-looking technology in the study. Ms. Smith acknowledged that the most efficient, least cost technology may or may not be what is deployed in SWBT's network today. Ms. Smith acknowledged that, with the exception of 1A switches and some ISDN services for which she assumed 100% 5ESS technology, she assumed in her cost studies that the telephone network would be configured as it currently exists in SWBT's network. In other words, she assumed that SWBT's existing network would represent the forward looking most efficient least cost network that should be included in a LRIC cost study. In making this assumption, she relied upon SWBT's network organization; she did not conduct any independent analysis of whether more efficient or less costly equipment was available in the market today.

All of the cost studies she is sponsoring are based upon demand in the network as it existed in either 1995 or 1996. She did not determine demand as it existed in 1997 and, with the exception of the switch discount, she has not incorporated future demand into her cost of studies. More specifically, she has not incorporated any demand forecasts performed by SWBT into her cost studies.

The local switching studies are based upon the Switching Cost Information System ("SCIS") model. Certain inputs are entered into the SCIS model, which develops the total switch investment for the 5ESS and the DMS switches. In order to develop a switch cost on a Minute of Use ("MOU") basis, she took the total switch investment from SCIS, added feature hardware investments, subtract the port investment and divided by the minutes of use.

One of the most important inputs in the SCIS model is the switch discount. A switch discount was entered for both the Lucent and Nortel switches. The Lucent discount was derived from a contract that was executed in 1995 and which is still current today. Under this contract, SWBT receives a 70 percent initial placement discount and a 20% system discount which represents an effective discount of 76% for all Lucent switches. This was not the discount that was entered into SCIS. Rather than using the initial placement discount, Ms. Smith computed a discount that would be entered into SCIS. In making this computation, Ms. Smith assumed that the switch will be grown every two years over the nine years of the switch which she assumed was the average switch life. Thus, to get from the 76% placement discount to the 65.25% used in the SCIS model, the switch was grown assuming 5.1 percent growth over a nine-year interval. The discount applicable to growth lines was added to the initial placement discount and the entire computation was discounted back to the present. Ms. Smith agreed that this was the only place in any of the cost studies she was sponsoring where SWBT included growth in the cost study. For example, in the switching studies, SWBT did not grow the minutes of use over the same nine-year period.

Following its merger with Pac Bell, Southwestern Bell had been engaged in conversations with Lucent and Nortel to execute new contracts for switches. This new contract will cover switches deployed in both Southwestern Bell and Pac Bell territories. Whatever discounts are in the new agreement with the switch vendors, any switches that are purchased by Southwestern Bell in the five or seven-state area for 1998 will be governed by the terms of that new contract. Ms. Smith claimed not to know that the status of the negotiations between SWBT and its switch vendors and claimed not to know the discounts that will apply in this agreement.

The switching cost studies take the total switch investment derived from the SCIS model. That investment does not include the costs associated with feature hardware in the switch. Therefore, feature hardware investment is added to the total switch investment derived from SCIS. To determine the future related hardware investment, Ms. Smith obtained unit prices and quantities for all feature related hardware from SWBT's PICS DCPR organization. The source of the information that was used to determine the feature hardware investment included in the switching cost studies is from the books and records of the company. Ms. Smith also acknowledged that the feature hardware investment is based upon historical costs for that feature related hardware.

Ms. Smith agreed that of the feature related hardware investment, the trunk terminations make up a vast majority of that investment. The trunk termination investments included in the switching cost studies include tie trunks for Centrex or PLEXAR and private network trunking, many of which are independent revenue producers for SWBT. Because the investments associated with these trunk terminations are included in the switching investments, if a CLEC orders PLEXAR and needs a tie trunk or other trunk termination, because all the features and functionality of Centrex or PLEXAR are included in the switch investment, the tie trunk or trunk termination will be provided at no additional cost. Indeed, all features and functions of the switch including all Plexar and Centrex features will be provided at no additional cost to a requesting CLEC.

Ms. Smith agreed that the unit prices for many of the feature related hardware that were included in the switching investment could have been obtained by using the SCIS/IN model. Ms. Smith admitted that there are no faults with the integrity of the SCIS/IN model. Indeed, she used the SCIS/IN model in some of the studies that she is sponsoring in this docket. Instead of using SCIS/IN to derive these unit prices, she used the much higher historical prices obtained from the PICS-DCPR organization.

The initial investment in the switching cost studies includes what is called a getting started investment which represents the cost to get the switch up and running. Ms. Smith acknowledged that the getting started investment will remain the same whether there is one line in the switch or twenty thousand lines in the switch which make up part of the total cost of this network element. Nevertheless, Ms. Smith allocated all of the getting started investment to the switch and allocated none of that investment to the port.

The investment used in the SCP cost studies is derived from the Common Channel Switching Cost Information System ("CCSCIS") model. STPs come in pairs and Ms. Smith assumed for modeling purposes that only 40% of each STP will be

utilized. In the STP and SCP cost studies, there are also investments associated with A links, B links, C links and D links. In its cost studies for STP's and SCP's, SWBT used a 10.75 percent utilization for A links, 2.75 percent utilization for B links, and 13.8 percent utilization for C and D links. This utilization is multiplied by 40% to determine the effective utilization used in the cost study. For example, the 10.75 percent utilization for the A links, that utilization would be multiplied by 40 percent to come up with an effective utilization of roughly 4 percent.

In the SS7 transport study she used CCSCIS Version 4.1 to derive the investment number that is used in the cost study number. The same D link utilization factor discussed above was used in this study.

The LIBD validation Query Cost study uses both STPs and SCPs. For purposes of determining the SCP investments associated with LIBD validation queries, SWBT could not use version 4.1 of CCSCIS and had to use an older version of CCSCIS, version 3.9. This was because the particular equipment that is in SWBT's network can not be used through any version of CCSCIS that came out after 3.9. This equipment that is used in the SCP study is 10 years old. The discount used in CCSCIS 3.9 to derive the investments was 18 percent. Ms. Smith acknowledged that discount was based upon the contract that was executed between Southwestern Bell and the vendor some 10 years ago. No effort was made to determine, if she were to go out in the market today and buy that SCP equipment, what the discount would be today.

With respect to the recurring costs included in the OS/DA cost studies, the Operator Services Cost model is the central model to all of those studies. Any changes made to the OSCM study would carry through to all OS/DA studies. Southwestern Bell has established that the administrative fill for a NPX equipment is 95 percent and the administrative fill for the ETMS equipment is 95 percent. Furthermore, the administrative fill for IVS equipment is 85 percent and the administrative fill for SCU equipment is 85 percent. Ms. Smith admitted that the IVS and the SCU equipment that is included in the study was actually purchased in 1990 or 1991. In her studies for operator services, Ms. Smith used actual fill factors and not optimal or administrative fill factors.

The forward looking common cost study that Ms. Smith is sponsoring is based upon 1995 ARMIS data. All expenses captured in the study are historical expenses incurred by Southwestern Bell. There are corporate expenses in other states that are allocated to the State of Oklahoma on some basis. In the beginning of the study, she determined retail and wholesale expenses for SWBT in Oklahoma. In so doing, she took portions of certain of 6600 accounts, allocated some portion of those accounts to retail expense and some portion of those 6600 accounts to wholesale expense. The portions that were chosen to allocate were based upon the FCC allocation as set forth in the FCC's Second Report and Order In Docket 96-98. In the FCC Order, it said 90 percent of certain accounts should be avoidable and 10 percent non-avoidable and 100% of certain accounts should be treated as non-avoidable. She went through each of those accounts and, using the FCC allocation system, calculated the retail and wholesale expenses applicable in Oklahoma. She did not use the avoided cost discount that was ordered by the Oklahoma Commission in any way to come up with the retail and wholesale expenses included in her study.