

## 4.2 CCS Investment

SICAT calculates implicit costs per CCS so costs attributable to usage-driven switch equipment can be removed from line prices. This allows line termination and switch usage costs to be separately identified. The costs per CCS calculations are found on the CCS Investment spreadsheet. Figure 4.8 illustrates the calculations.

The Vendor A contract provides three line prices depending upon the CCS per line. The cost per CCS is calculated as the difference in line prices between basic usage and the first higher increment of use, divided by the difference in usage. Separate costs per CCS are calculated for replacement, growth and new lines, recognizing their different line prices.<sup>13</sup>

Vendor B does not vary line prices for different CCS per line. Vendor B provides additional information, which allows incremental costs per CCS to be calculated. Vendor B configures switches for basic usage of 0 CCS per line. The next higher level of use is 0 CCS per line. The typical Vendor B switch has approximately 22,000 lines. Based on this information, Vendor B determines that thirty-six additional ports per umbilical are required per switch (to handle 0 additional CCS for 00,000 lines). The CCS Investment spreadsheet uses these data along with the port price from Input – EF&I Costs to compute the cost per CCS.

Vendor C cost per CCS calculation is straightforward. The Company provides a CCS price per line at the next level over basic usage and the CCS per line at the next level. The cost per CCS is calculated from these data. (The CCS per line for basic usage is applied to the cost per CCS to determine the CCS cost per line.)

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<sup>13</sup> SICAT can compute the incremental cost for the third level of usage. However, since 100% of lines are assumed to have usage less than or equal to the basic CCS capacity per line, the incremental cost between line prices with basic use and the first increment of use is used.

Figure 4.8

Microsoft Excel - SICAT - All 3.0 Vendor Generic 10.16.03

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### Calculation of Investments Per CCS

**Vendor A**

	Engineered, Furnished & Installed Price	CCS Capacity / Line	EF&I Price / CCS	Lines by CCS Band	Weighted CCS Price
<b>Replacement lines</b>					
Access Interface Unit (AIU) line - new up to 9.18 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 200.00	9.18	16.34	100%	\$ 16.34
Access Interface Unit (AIU) line - new up to 12.24 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 250.00	12.24	16.34	0%	NA
Access Interface Unit (AIU) line - new up to 18.36 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 300.00	18.36	NA	0%	NA
<b>Growth lines</b>					
Access Interface Unit (AIU) line - new up to 9.18 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 200.00	9.18	-	100%	-
Access Interface Unit (AIU) line - new up to 12.24 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 200.00	12.24	-	0%	NA
Access Interface Unit (AIU) line - new up to 18.36 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 200.00	18.36	NA	0%	NA
<b>New lines</b>					
Access Interface Unit (AIU) line - new up to 9.18 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 200.00	9.18	-	100%	-
Access Interface Unit (AIU) line - new up to 12.24 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 200.00	12.24	-	0%	NA
Access Interface Unit (AIU) line - new up to 18.36 Centi Call Seconds (CCS) measured Average Busy Seas	\$ 200.00	18.36	NA	0%	NA

**Vendor B**

	Host Switch		Remote Switch	
	Analog Line	Digital Line	Analog Line	Digital Line
Centi Call Seconds (CCS) / line - configured switch	5.00	5.00	4.00	4.00
Centi Call Seconds (CCS) / line - at next increment of usage	6.00	6.00	5.00	5.00
Incremental Centi Call Seconds (CCS) / line	1.00	1.00	1.00	1.00
Typical switch size (lines)	30,000	30,000	1,500	1,500
Incremental Centi Call Seconds (CCS) / switch	30,000	30,000	1,500	1,500
Incremental ports / umbilicals per switch	50	50	1	1
Port / umbilical Engineered, Furnished, & Installed (EF&I) price	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Incremental cost / switch	\$ 50,000	\$ 50,000	\$ 1,000	\$ 1,000
Incremental cost / Centi Call Second (CCS)	\$ 1.67	\$ 1.67	\$ 0.67	\$ 0.67

**Vendor C**

	Host Switch	
	Analog Line	Digital Line
Centi Call Seconds (CCS) capacity / line for configured switch	5.00	5.00
Engineered, Furnished, & Installed (EF&I) price / line for Centi Call Seconds (CCS) usage at next increment of	\$ 200.00	\$ 200.00
Centi Call Seconds (CCS) / line - at next increment of usage	6.00	6.00
Incremental cost / Centi Call Second (CCS)	\$ 33.33	\$ 33.33

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***Appendix A******Appendix B*****Electronic and Paper Copies of SICAT**

An electronic copy of the Excel® workbook, containing spreadsheets used as examples, is enclosed on a 3 ½" computer disc. The electronic copy can be used to view algorithms contained in spreadsheet cells and to "audit" SICAT output and intermediate calculations.

A paper copy of the workbook also is enclosed.

# Attachment 4

# Shared and Common Cost Methodology

## I. Introduction

Because SBC's forward-looking cost study does not include shared and common costs, a methodology was created to develop a reasonable allocation of shared and common costs that is currently recovered in the subscriber line charge (SLC). This shared and common (S & C) methodology yields a state-specific S & C factor that is applied to state-specific loop and port costs in order to determine an appropriate amount of overhead costs.

## II. The Shared and Common Cost Factor

The S & C factor represents the ratio of shared and common costs relative to total operating costs. This factor is applied to the forward-looking costs produced by the direct cost studies. It is calculated on a state-by-state basis according to the following calculation:

$$\text{S \& C Factor} = \text{S \& C Costs} \div \text{Total Operating Costs}$$

## III. Determination of Total Operating Costs

Total Operating Costs are a combination of Net Investment, Operating Expenses, and Shared and Common Overhead Costs. To capture the appropriate accounts, it first is necessary to determine which USOA accounts capture non-traffic sensitive costs as referenced in Part 36 of the Commission's rules. Non-traffic sensitive costs are the basis of the original costs to be recovered in the common line basket. The SLC rate element is intended to recover these costs in the common line basket. Thus, the accounts addressed in the non-traffic sensitive Part 36 procedures should be recovered in the determination of the SLC rate element.

### A. Determination of Return on Net Investment & Associated Income Tax Costs

From the USOA accounts that capture non-traffic sensitive costs, the following investment (balance sheet) accounts are aggregated to provide the relevant net investment.

1220	INVENTORIES	2231	RADIO SYSTEMS
2111	LAND	2232	CIRCUIT EQUIPMENT
2112	MOTOR VEHICLES	2311	STATION APPARATUS
2114	TOOLS AND OTHER WORK EQUIPMENT	2321	CUSTOMER PREMISES WIRING
2121	BUILDINGS	2351	PUBLIC TELEPHONE TERM EQUIPMNT
2122	FURNITURE	2362	OTHER TERMINAL EQUIPMENT
2123	OFFICE EQUIPMENT	2411	POLES
2124	GENERAL PURPOSE COMPUTER	2421	AERIAL CABLE
2211	ANALOG ELECTRONIC SWITCHING	2422	UNDERGROUND CABLE
2212	DIGITAL ELECTRONIC SWITCHING	2423	BURIED CABLE
2215	ELECTRO-MECHANICAL SWITCHING	2424	SUBMARINE CABLE
2220	OPERATOR SYSTEMS	2426	INTRABUILDING NETWORK CABLE

2441	CONDUIT SYSTEMS	3420	ACCUM AMORT-LEASEHOLD IMPROV
2681	CAPITAL LEASES	3500	ACCUM AMORTIZATION-INTANGIBLE
2682	LEASEHOLD IMPROVEMENTS	3600	ACCUM AMORTIZATION-OTHER
2690	INTANGIBLE ASSETS	4040	CUSTOMER DEPOSITS
2002	PHFTU	4100	NET CURNT DEFRD OPER INCM TXS
2003	TPUC	4120	OTHER ACCRUED LIABILITIES
2005	PLANT ACQUISITION ADJUSTMENT	4310	OTHER LONG-TERM LIABILITIES
3100	ACCUMULATED DEPRECIATI	4340	NET NCRNT DEFRD OPER INCM TAXE
3200	ACUM DPRC-HLD FR FTR TELCOM US	4360	OTHER DEFERRED CREDITS
3410	ACCUM AMORT-CAPITAL LEASES	4370	OTH JURISDICT LIAB DFRD CR-NET

The net investment is then applied against the interstate rate-of-return and the tax gross up to arrive at the investment-based return and tax costs.<sup>1</sup> This is the first element in calculating the total operating costs.

### **B. Determination of Operating Expenses**

The following operating expense accounts also are utilized in the development of the operating expenses that are a part of the total operating cost calculations:

6112	MOTOR VEHICLE	6421	AERIAL CABLE
6114	TOOLS AND OTHER WORK	6422	UNDERGROUND CABLE
6117	TECHNICAL EQUIPMENT	6423	BURIED CABLE
6121	LAND AND BUIDLING	6424	SUBMARINE CABLE
6122	FURNITURE AND ARTWORKS	6426	INTRABUILDING NETWORK CABLE
6123	OFFICE EQUIPMENT	6441	CONDUIT SYSTEMS
6124	GENERAL PURPOSE COMPUTERS	6512	PROVISIONING
6211	ANALOG ELECTRONIC	6531	POWER EXPENSE
6212	DIGITAL ELECTRONIC	6532	NETWORK ADMINISTRATION
6215	ELECTRO-MECHANICAL	6533	TESTING
6220	OPERATOR SYSTEMS	6534	PLANT OPERATION
6231	PUBLIC TELEPHONE TERMINAL EQP	6535	ENGINEERING
6232	CIRCUIT EQUIPMENT	6540	ACCESS
6311	STATION APPARATUS	6561	DEPR - TELECOM PLANT IN SERVICE
6351	PUBLIC TELEPHONE TERMINAL	6563	AMORT EXPENSE - TANGIBLE
6362	OTHER TERMINAL EQUIPMENT	6564	AMORT EXPENSE - INTANGIBLE
6411	POLES	6565	AMORT EXPENSE - OTHER
6622	NUMBER SERVICES		

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<sup>1</sup> The sum of these accounts was adjusted by 11.25% to account for the authorized rate of return. This figure was then grossed up by a factor of 58.846% (calculated as .35/.65 using the 35% Federal tax rate) to determine the associated income tax gross up.

C. **Determination of Shared and Common Cost Accounts**

The following non-traffic sensitive accounts remained to be recovered through a shared and common factor:<sup>2</sup>

5301 UNCOLLECTIBLE REVN-TELECOMMUN  
5302 UNCOLLECTIBLE REVENUE-OTHER  
6611 PRODUCT MANAGEMENT  
6612 SALES  
6613 PRODUCT ADVERTISING  
6621 CALL COMPLETION SERVICES  
6623 CUSTOMER SERVICES  
6711 EXECUTIVE  
6712 PLANNING  
6721 ACCOUNTING AND FINANCE  
6722 EXTERNAL RELATIONS  
6723 HUMAN RESOURCES  
6724 INFORMATION MANAGEMENT  
6725 LEGAL  
6726 PROCUREMENT  
6727 RESEARCH AND DEVELOPMENT  
6728 OTHER GENERAL AND ADMIN  
7240 OPERATING OTHER TAXES<sup>3</sup>

IV. **Application of the S & C Factor**

The S & C factor is used to develop the portion of shared and common costs that should be recovered in common line charges. This overhead is calculated as follows:

$(\text{Loop Cost} + \text{Port Cost}) \times \text{S \& C Factor} = \text{S \& C Cost}$

For example, if the loop cost is \$17.50, the port cost is \$2.50 and the S & C Factor for a study area is 25%, then the S & C Costs for a loop and port in that study area is \$5.00.

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<sup>2</sup> In other words, these accounts were included in the S & C methodology because they were the remaining accounts not included in the direct cost studies for the loop and port.

<sup>3</sup> Because a percentage of these costs are embedded within the direct cost loop study, only a portion of Account #7240 was included in this S & C Factor calculation to avoid double-counting of these costs.

# Attachment 5

**SBC Communications Inc.**  
**Subscriber Line Charge Cost Information Summary**

	SWBT - AR	SWBT - KS	SWBT - MO	SWBT - OK	SWBT - TX
<b>CMT</b>	<b>5.67</b>	<b>5.27</b>	<b>5.10</b>	<b>4.71</b>	<b>5.37</b>
<b>Study Area FLEC</b>	<b>7.33</b>	<b>8.39</b>	<b>6.66</b>	<b>7.86</b>	<b>7.86</b>
<b>Zone 1 FLEC</b>	<b>6.04</b>	<b>7.68</b>	<b>6.20</b>	<b>7.14</b>	<b>7.08</b>
<b>Zone 2 FLEC</b>	<b>7.46</b>	<b>7.97</b>	<b>6.75</b>	<b>7.72</b>	<b>7.64</b>
<b>Zone 3 FLEC</b>	<b>10.73</b>	<b>14.95</b>	<b>7.07</b>	<b>9.67</b>	<b>9.99</b>
<b>Zone 4 FLEC</b>	<b>n/a</b>	<b>n/a</b>	<b>7.80</b>	<b>n/a</b>	<b>n/a</b>

Note: SWBT's filing entity CMT has been disaggregated to the state level in accordance with 47 CFR § 61.3(d)

	Pacific Bell - CA	Nevada Bell - NV	SNET - CT
<b>CMT</b>	<b>4.41</b>	<b>6.05</b>	<b>5.71</b>
<b>Study Area FLEC</b>	<b>5.97</b>	<b>7.15</b>	<b>5.30</b>
<b>Zone 1 FLEC</b>	<b>5.53</b>	<b>6.24</b>	<b>4.48</b>
<b>Zone 2 FLEC</b>	<b>6.67</b>	<b>7.74</b>	<b>5.16</b>
<b>Zone 3 FLEC</b>	<b>7.76</b>	<b>11.59</b>	<b>5.46</b>
<b>Zone 4 FLEC</b>	<b>n/a</b>	<b>n/a</b>	<b>6.16</b>

	Ameritech - IL	Ameritech - IN	Ameritech - MI	Ameritech - OH	Ameritech - WI
<b>CMT</b>	<b>4.47</b>	<b>5.53</b>	<b>5.32</b>	<b>5.37</b>	<b>5.07</b>
<b>Study Area FLEC</b>	<b>5.96</b>	<b>6.14</b>	<b>6.85</b>	<b>6.01</b>	<b>6.23</b>
<b>Zone 1 FLEC</b>	<b>3.43</b>	<b>4.99</b>	<b>6.35</b>	<b>4.69</b>	<b>5.91</b>
<b>Zone 2 FLEC</b>	<b>5.33</b>	<b>6.14</b>	<b>6.87</b>	<b>5.82</b>	<b>6.25</b>
<b>Zone 3 FLEC</b>	<b>6.39</b>	<b>6.29</b>	<b>7.31</b>	<b>6.57</b>	<b>6.77</b>
<b>Zone 4 FLEC</b>	<b>n/a</b>	<b>6.33</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

Note: In this summary, the lowest cost zone in any state will uniformly be defined as "Zone 1," independent of the actual zone naming convention. Similarly, the highest-cost zone will be designated as "Zone 3" (or "Zone 4, if applicable).