ATTACHMENT B

BellSouth Telecommunications, Inc.
FPSC Docket No. 960786-A-TL
Request for Confidential Classification
Page 1 of 1
10/11/01

REQUEST FOR CONFIDENTIAL CLASSIFICATION OF BELLSOUTH'S RESPONSE TO STAFF'S 3RD REQUEST FOR PRODUCTION OF DOCUMENTS, ITEM NO. 43 (Attachments 1 and 2, CDs), FILED SEPTEMBER 20, 2001 IN FLORIDA DOCKET NO. 960786-A-TL

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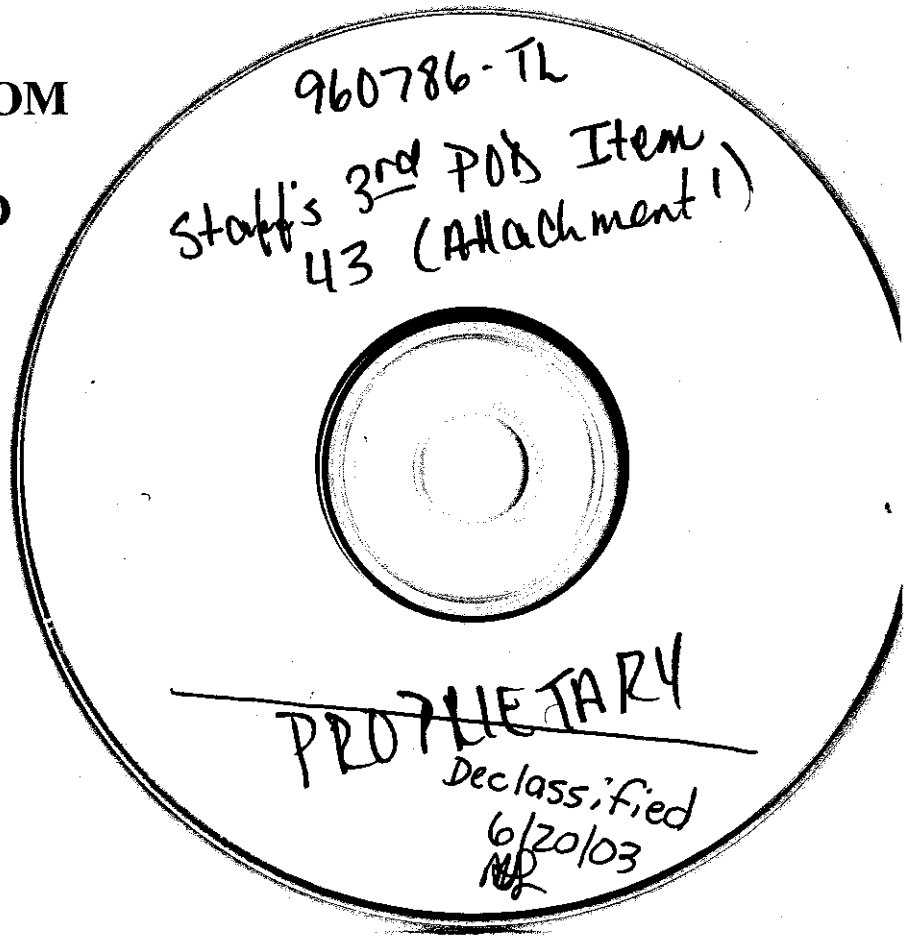

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FLORIDA DOCKET NO. 000731-TP
TABLE OF CONTENTS

SECTION 1 EXECUTIVE SUMMARY

STATEMENT OF PURPOSE
OVERVIEW
PROCESS FLOWCHARTS

SECTION 2 BELLSOUTH COST SUMMARY

SECTION 3 STUDY METHODOLOGY

TOTAL ELEMENT LONG RUN INCREMENTAL COST (TELRIC)
RECURRING COSTS
NONRECURRING COSTS

SECTION 4 DESCRIPTION OF MODELS AND PRICE CALCULATORS

1. BELLSOUTH COST CALCULATOR©
2. CAPITAL COST CALCULATOR©
3. DS1 CHANNELIZATION PRICE CALCULATOR
4. MAIN DISTRIBUTING FRAME (MDF) MATERIAL PRICE STUDY

SECTION 5 INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

1. BELLSOUTH REGION TELEPHONE PLANT INDEXES
   INVESTMENT INFLATION FACTORS
2. INPLANT LOADINGS
3. SUPPORTING STRUCTURE LOADINGS
4. LOADINGS
   - SUPPORTING EQUIPMENT AND POWER
   - LAND AND BUILDING
   - POLE AND CONDUIT
   - RIGHT-TO-USE (RTU)

5. ANNUAL COST FACTORS
   CAPITAL COSTS FACTORS
   PLANT SPECIFIC EXPENSE FACTORS
   AD VALOREM AND OTHER TAXES
   GROSS RECEIPTS TAX FACTOR
6. DISCONNECT FACTORS
7. LABOR RATES
8. SHARED AND COMMON COST FACTORS

SECTION 6 UNBUNDLED NETWORK ELEMENT STUDIES

INTRODUCTION
LIST OF COST ELEMENTS
NARRATIVES
   ELEMENT DESCRIPTION
   STUDY TECHNIQUE
   SPECIFIC STUDY ASSUMPTIONS

APPENDIX A CAPITAL COST CALCULATOR

MODEL DESCRIPTION
ILLUSTRATIVE EXAMPLE OF CAPITAL COST
CALCULATOR CALCULATIONS(electronic only)

APPENDIX B LOADINGS, FACTORS AND LABOR RATES

SHARED AND COMMON COST SUPPORTING
DOCUMENTS
   DESCRIPTION OF OPERATING EXPENSE PROJECTION
   CALCULATION
   SUPPORTING MICROSOFT EXCEL WORKSHEETS
BELLSOUTH REGION TELEPHONE PLANT INDEXES
   AND INVESTMENT INFLATION FACTORS
FACTORS AND LOADINGS – INPLANT; PLUG-IN,
   HARDWIRED; SUPPORTING EQUIPMENT AND POWER;
   PLANT SPECIFIC; LAND AND BUILDING; POLE AND
   CONDUIT; RTU FEE
DISCONNECT FACTORS
AD VALOREM AND OTHER TAXES
STATE AND FEDERAL INCOME TAXES
LABOR RATES

APPENDIX C BELLSOUTH COST CALCULATOR

BELLSOUTH COST CALCULATOR USER GUIDE
COMPACT DISK

FLORIDA DOCKET NO. 000731-TP
SECTION 1
EXECUTIVE SUMMARY

STATEMENT OF PURPOSE

BellSouth Telecommunications, Inc. (BellSouth) is herewith filing Total Element Long Run Incremental Cost (TELRIC) studies, including shared and common costs, (i.e., the economic cost) in response to the Florida Public Service Commission's (FPSC) Order-00-1634-PCO-TP in Docket No. 000731-TP.

OVERVIEW

Historically, BellSouth prepared Long Run Incremental Cost (LRIC) studies to support tariff prices for telecommunications services. The LRIC result, which considered only the volume sensitive costs, constituted the price floor for the service in question, and was one of a number of factors considered when establishing the price for a service. BellSouth also conducted Total Service Long Run Incremental Cost (TSLRIC) studies that addressed not only the volume sensitive costs but also considered the directly attributable volume insensitive costs. TSLRIC studies were used to ensure that the service was not being subsidized. With the advent of local competition as envisioned by the Telecommunications Act of 1996 (the Act), it became necessary for BellSouth to conduct cost studies to determine the costs associated with certain components or elements of its telecommunications network. BellSouth's TELRIC studies comply with the requirements of the Act and are in compliance with the FCC's as well as the Florida Public Service Commission's rules and regulations issued to implement the provisions of the Act.

ORGANIZATION OF REMAINDER OF DOCUMENT

Section 1 - The remaining pages of Section 1 provide a flowchart of the TELRIC study process.
Section 2 Includes the Unbundled Element Cost Summary
Section 3 - Includes an explanation of the TELRIC methodology, and the recurring and nonrecurring cost development process.
Section 4 - Contains a description and explanation of the models and price calculators used.
Section 5 - Describes each of the factors and loadings used in the studies and explains their development.
Section 6 - Contains a description of the UNEs and an overview of the study process for each category of UNEs.

FLORIDA DOCKET NO. 000731-TP
SECTION 1
EXECUTIVE SUMMARY

INSERT TELRIC CALCULATION FLOWCHART – ONE PAGE

FLORIDA DOCKET NO. 000731-TP
SECTION 1
EXECUTIVE SUMMARY

INSERT BELLSOUTH COST CALCULATOR WORKFLOW PROCESS CHART - ONE PAGE

FLORIDA DOCKET NO. 000731-TP
SECTION 2
UNBUNDLED ELEMENT COST SUMMARY

BELLSOUTH COST SUMMARY

FLORIDA DOCKET NO. 000731-TP
SECTION 3
STUDY METHODOLOGY

TOTAL ELEMENT LONG RUN INCREMENTAL COST (TELRIC)

BellSouth's cost studies are compliant with the FCC's TELRIC standards. Thus, they are consistent with the FCC's costing methodology as set forth in FCC Rule 51.505. Pursuant to the FCC's rules, such costs must be developed using an efficient network configuration that uses the existing location of the Incumbent Local Exchange Carrier's (ILEC's) wire centers. Further, the costs should be developed using a forward-looking cost of capital and economic depreciation rates, and a reasonable allocation of forward-looking common costs is appropriate. The forward-looking economic costs may not include embedded costs, retail costs, opportunity costs or revenues to subsidize other services. The FCC's recent UNE Remand Order did not adjust the TELRIC cost methodology.

There are two generic types of costs that have been studied: recurring and nonrecurring.

RECURRING COSTS

The monthly costs resulting from capital investments deployed to provision network elements are called recurring costs. Recurring costs include capital and operating costs. Capital costs include depreciation, cost of money and income tax. Operating costs include the expenses for maintenance, ad valorem and other taxes and represent ongoing costs associated with upkeep of the initial capital investment. Gross receipts tax (which includes municipal license taxes and PSC fees) is added.

The first step in developing recurring TELRIC studies is to determine the forward-looking network architecture that, when deployed, represents the most efficient design to provision the network element. The material prices for the equipment and their respective capacities necessary to implement the forward-looking design are gathered. Next, account specific Telephone Plant Indexes (TPIs) are applied, when necessary, to trend material prices to the base study period. Telecommunications equipment and plant placements are typically "lumpy". Thus, utilization (or fill) factors are applied to the material prices to reflect BellSouth's forward-looking actual utilization of the plant. Also, when multiple vendors are used, it is necessary to determine the average material price for a typical element based on the probability of occurrence. Inflation Factors, by plant account code, are then applied to the material prices to trend the base-year material price to levelized amounts that are valid for a three-year planning period. In order to convert the material prices to installed investments, account specific inplant loadings are applied to the material prices. The inplant loadings include engineering and installation labor (potentially both BellSouth and vendor), exempt material and sales taxes.

Supporting equipment and power loadings are added, as appropriate, to specific investment accounts. Next, support structure investments for land, building, poles

and conduit are developed. These support structure investments are identified by their relationship to the respective item of plant being supported. For example, applying a pole-loading factor to the aerial cable investment develops the pole investment. An accounting change, effective 1999, reclassified Right-To-Use (RTU) fees from expense to capital. In order to reflect the capitalized RTU fees (560C) associated with central office investments (377C), BellSouth also developed a RTU fee loading factor.

Annual Cost Factors are used to calculate the direct cost of capital, plant specific expenses and taxes. Account specific factors for each Uniform System of Accounts – Field Reporting Code (USOA-FRC) are applied to the installed investment by account code, yielding an annual cost per account code. Account specific shared cost factors are applied then the gross receipts tax factor is applied to produce forward-looking TELRIC costs. The common cost allocation factor is then applied. The result is the economic cost.

The generic steps for developing recurring cost can be summarized as shown below. However, the unique technical characteristics and physical makeup of each cost element must be taken into consideration.

Step 1: Determine the forward looking, efficient network designs (architectures) which will be used in deployment of the network element.

Step 2: Determine current material prices for the items of plant used in each design. Material prices are obtained from BellSouth contracts with various vendors and thus, reflect the current discounts.

Step 3: Apply material Telephone Plant Indexes (TPIs) as appropriate to determine the base year material prices. Material TPIs estimate the changes in material prices over time.

Step 4: Adjust the material prices for utilization to account for spare capacity using a reasonable projection of actual total usage.

Step 5: Weight the material prices, as appropriate, to determine the average material price for a typical element by USOA-FRC, i.e., plant account.

Step 6: Apply material inflation factors to the material prices to convert the utilized base year material prices to material prices representative of a three year planning period.

Step 7: Apply inplant loadings to the inflated material prices to convert the material prices to an installed investment, which includes the cost of material, engineering labor and installation labor.

Step 8: Apply support loadings to the investments to determine investments for support equipment and power, RTU fees, land, buildings, poles and conduit as appropriate.

Step 9: Convert the investments by FRC to annual costs by applying account specific TELRIC annual cost factors to the various investments. The annual cost factors calculate the capital costs (depreciation, cost of money, and income tax) and operating expenses (plant specific expense, ad valorem taxes, and other taxes). Add the annual costs for the various FRCs. Next divide by 12 to determine the direct monthly cost. (Not all elements are expressed on a monthly basis. For example, elements charged on a per minute of use basis are not divided by 12.)

Step 10: Apply the shared cost (account specific) factors. Then apply the gross receipts tax factor. The result is TELRIC.

Step 11: Apply the common cost allocation factor to determine economic costs.

NONRECURRING COSTS

Nonrecurring costs are one-time expenses associated with provisioning, installing and disconnecting an unbundled network element or a combination. These costs potentially include five major categories of activity: service inquiry, service order processing, engineering, connect and test, and technician travel time. Examples of the work activities in each of these categories are:

Service Inquiry – Review network facilities for availability

Service Order Processing - Prepare and issue service orders

Engineering - Assign cable and pair; design circuit; order plug-in; perform translations in the switch

Connect and Test - Install circuit; test circuit; disconnect

Technician Travel Time - Travel to the customer's premises

The first step in developing nonrecurring costs is to determine the cost structure, i.e., determine if the costs occur only once, on a first and additional basis, or on an initial and subsequent basis. Individuals familiar with the provisioning process associated with each unbundled network element or combination describe the tasks required to handle a service request from a CLEC. In other words, they determine the workflow. Then, subject matter experts identify the amount of time

required to perform the tasks and also determine the probability that the activity will occur. Nonrecurring costs are developed by multiplying the work time for each work function by the labor rate for the work group performing the function.

Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as the installation costs.

The generic steps for developing nonrecurring costs are summarized in the following steps:

Step 1: Determine the cost structure.

Step 2: Define the work functions.

Step 3: Establish work flows.

Step 4: Determine work times for each work function.

Step 5: Develop labor costs for each work function (labor rate x work time).

Step 6: Accumulate work function costs to determine the total nonrecurring costs for each cost element. Add gross receipts tax. The result is TELRIC.

Step 7: Apply the Common Cost Allocation factor to determine the economic costs.

FLORIDA DOCKET NO. 000731-TP
SECTION 4
DESCRIPTION OF MODELS AND PRICE CALCULATORS

1. BellSouth Cost Calculator

The BellSouth Cost Calculator, a model developed by BellSouth, produces long run incremental cost studies. The model was designed to accept variable inputs that are applied according to a user-controlled matrix. The BellSouth Cost Calculator© was used to produce the TELRIC studies included in this filing.

The BellSouth Cost Calculator is a Microsoft Visual Basic application that is used to create cost study scenarios that are stored in a Microsoft Access database. The BellSouth Cost Calculator allows users to access and modify these scenarios to create new scenarios. Each scenario contains all the data necessary to produce a cost study.

The BellSouth Cost Calculator takes information from the default data sources or from the user-modified sources and stores them in tables within the scenario database. Investments are stored by Field Reporting Code (FRC), Sub Field Reporting Code (Sub-FRC), and cost element number. The sub-FRC is used by the BellSouth Cost Calculator to determine the appropriate application of factors and loadings. The factors and loadings are applied based on a "Factor Application" matrix. This matrix can be viewed or printed from the BellSouth Cost Calculator under the "Inputs – Factor Application" menu item. Factors and loadings are stored by FRC.

Recurring and nonrecurring work times are stored by function and Job Function Code (JFC) or Job Grade. Other recurring and nonrecurring expenses are stored by description and cost element number. Lastly, labor rates are stored by JFC or Job Grade. The output reports are by default created in a Crystal Report format that can be viewed or printed, however, the user can also export any report to an Excel file.

BellSouth Cost Calculator Recurring Cost Development

Investment Development (Excluding Land, Building, Pole, & Conduit)
Volume sensitive and volume insensitive material prices by FRC and sub-FRC are converted to investments by applying inflation factors, inplant loadings and supporting equipment and/or power loadings, if applicable. As stated previously, the application of these factors/loadings is driven by a "Factor Application" matrix. If the factor/loading is not applicable to the FRC and sub-FRC, the material price is multiplied by the default value of one. All calculations are detailed above each column on the output sheets.

Land, Building, Pole, & Conduit Investment Development
Investments from the Investment Development process flow into the Land, Building, Pole, and Conduit module. This module applies land, building, pole, and conduit loadings to the investments. If land, building, pole, and conduit investments are directly calculated in the Investment Development process, they are multiplied by a factor of one. If one or all of these factors do not apply to an FRC, excluding land, building, pole, and conduit FRCs, the factor defaults to zero. The results are then summed and passed to the Recurring Cost Development process. All calculations are detailed above each column on the output sheets.

Network Switch RTU Fees (560C)
If the study identifies a 377C switching investment associated with an end office or tandem switch, the 560C factor is utilized to develop the software RTU investment. The Simplified Switching Tool (SST) computes switch RTU fees by applying the RTU fee loading factor (FRC 560C) to the primary switch (377C) investment. SST provides the 377C and 560C investments separately for input to the Recurring Cost Development process.

Recurring Cost Development
The investments from the Investment Development and the Land, Building, Pole, and Conduit Investment Development modules are summed to the FRC level and flow into the Recurring Cost Development module. This process applies depreciation, cost of money (COM), income tax, plant specific, and ad valorem tax factors to the investments. If a factor does not apply, the default is zero. These results are then summed to produce direct cost. All calculations are detailed above each cell. The shared cost factor is applied to the investments to produce shared cost and then added to direct cost to produce TELRIC. If the input investments are annual investments, the outputs are divided by twelve to produce monthly costs. The results then flow to the Recurring Economic Cost Development process.

Recurring Labor Expense Development
Recurring labor work times associated with a work function and a JFC or Job Grade are multiplied by the appropriate labor rates, determined by the JFC or Job Grade, to produce the expenses.. These expenses flow to the summary process, i.e., the Recurring Cost Development process. All calculations are detailed above each cell.

Recurring Economic Cost Development
Recurring costs from the volume sensitive and volume insensitive recurring cost development processes, recurring direct expenses from the recurring Labor Expense Development process, and other expenses from the input sheet "Additives" flow to the Recurring Economic Cost Development process. All costs

and expenses are summed to a total cost. This cost is then multiplied by Gross Receipts Tax and Common Cost factors to obtain the volume sensitive and volume insensitive recurring costs. These two costs are summed to produce economic costs.

All, some, or none of the previously described recurring cost development sheets will be included with a cost element, depending on their applicability.

BellSouth Cost Calculator Nonrecurring Cost Development

Nonrecurring Cost Development
Installation and disconnect work times, by work function and JFC or Job Grade, are brought from the input sheet, Nonrecurring Labor, to the nonrecurring cost development process. The nonrecurring cost development process produces three different types of nonrecurring cost structures. The first structure is for a single nonrecurring cost, the second is for costs that are first and additional, and the third is for costs that are initial and subsequent. Only one of these three structures is developed for a cost element. The cost development methodology is the same for all three structures.

The BellSouth Cost Calculator calculates the disconnect factor, used to develop the present value of a labor cost that will take place in the future. The calculator develops this factor by first locating the factor associated with the study midpoint date in the working database. The end-point date is then determined by adding the cost element life, in months, to the midpoint date. The factor associated with this date is then divided by the midpoint factor. If there is no cost element life indicated (i.e., value equals zero), the disconnect factor is one. If the disconnect cost is to be collected at the time of disconnect, a future value is calculated and the disconnect cost is not converted to a present value.

To develop the nonrecurring cost, the appropriate labor rate for the JFC or Job Grade is applied to the installation and disconnect work times for each function to produce the install cost and the disconnect cost. The disconnect cost also has the disconnect factor applied. The costs then flow to the appropriate summary process. All calculations are detailed above each cell.

Nonrecurring Economic Cost Development
The nonrecurring installation and disconnect costs from the Nonrecurring Cost Development process, and other expenses from the input sheet "Additives" are brought to the installation cost development and the disconnect cost development processes where costs and expenses are summed to a total cost. These costs are then multiplied by Gross Receipts Tax and Common Cost

factors to produce the nonrecurring economic costs for installation and disconnect.

The previously described nonrecurring cost development reports will not be included with a cost element for which nonrecurring costs are not applicable.

2. Capital Cost Calculator

The Capital Cost Calculator calculates the three annual capital cost factors - depreciation, cost of money and income tax for each class of physical plant. Depreciation (book) is a function of the Gompertz-Makeham survival curve for the respective classes of plant, and is defined in the calculator by the c, G and S parameters. Cost of Money is the return on investment needed to satisfy both the debt and equity investors in the enterprise. Income tax calculations are a function of the return on equity (that portion of the Cost of Money not directed toward debt retirement) and debt service requirements.

User adjustable inputs to the calculator include financial data, tax data, tax depreciation information, and book depreciation data. The calculator also allows the user to input the Gompertz-Makeham curve shapes, the lives, and the future net salvage (FNS) of each plant account.

Survival data for each class of plant is based on the Gompertz-Makeham survival curve defined by the c, G, and S parameters describing the attrition of plant over it's useful life. The curve is adjusted to match the respective economic lives. The G-M survival curves are the standard approach used in the telecom industry and approved by most state and federal regulatory bodies. While the curve represents the pattern of retirements, the area under the curve represents the average life of the plant. Thus, as the user adjusts the average life, the area under the curve must also be adjusted to match the input average life.

The calculator contains survival data for both beginning of year (BOY) convention and end of year (EOY) convention. Yearly retirements are obtained by subtracting current year survival proportions from previous year survival proportions.

In calculating annual depreciation amounts, the Calculator methodology uses the standard Midyear Equal Life Group (ELG) approach. Since midyear convention is used, the first year values recognize that capital is only on the books for ½ of a year.

Average Capital per year is used as the basis against which Cost of Money calculations are made. Beginning of Year Capital and End of Year Capital are averaged together to develop the Average Capital per year.

The EOY capital balance is calculated as:

(BOY Capital) - (Book Depreciation) - (Deferred Tax)

This balance recognizes the deferred tax balance that is available to the company from "normalizing" its deferred taxes. However, this balance is assumed to have a 0% rate of return (therefore, it can be removed from the capital amount the company has invested).

Annual Deferred Tax is calculated as:

(Tax Deprecation) - (Book Depreciation) * (Combined Income Tax Rate)

Data inputs for income tax data calculations include a MACRS (Modified Accelerated Cost Recovery System) table. This table provides the yearly tax depreciation rates for each Recovery Class as specified by MACRS tax depreciation rules.

Grossed-up Income Tax is calculated as:

(Return on Equity * Combined Income Tax Rate) /
(1 - the Combined Income Tax Rate).

This formula recognizes that most states do not allow Federal Income Taxes to be deducted from income.

Tax depreciation is included in Federal Income Tax calculations and serves to reduce the effective tax on the Return on Equity portion of Cost of Money.

When the initial operations of the Calculator are completed, the total capital cost factors for each year that plant survives is determined. In order to develop a set of levelized annual cost factors, two steps are necessary. First, the net present value (NPV) of the annual factor streams is calculated using a discount rate equal to the Cost of Money. Second, the NPV is spread over the economic life of the plant account using a midyear convention to arrive at a set of levelized annual cost factors for book depreciation, cost of money, and combined income taxes. A detailed description of the model and the associated EXCEL spreadsheet is included in Appendix A.

3. DS1 Channelization Price Calculator

The DS1 Channelization Price Calculator develops the material prices of D4 Channel Banks and their associated common plug-ins.

The price calculator applies TPI (Telephone Plant Indexes) factors to material prices, if needed, to bring material prices to current levels. Prices are divided by the capacity of the circuit being studied (DS0, DS1, etc.). All material except deferrable plug-ins have an 85% utilization factor applied to them. Deferrable plug-ins are dedicated to each circuit and thus have a 100% utilization. This produces a utilized material price at a specified capacity or transmission level.

An electronic copy of this Price Calculator is included on the CD under the Models sub-directory.

Illustrative Example of the DS1 Channelization Price Calculator: DSX-1 Panel at DS0 Level

DSX-1 Panel material price	$12,600
Number of DS1 ports available	/ 840
Material price per DS1 per port	$ 15.00
Number of DS0 ports available per DS1	/ 24
Material price per DS0 per port	$ .625
Utilization Factor	/ .85
Utilized Material Price per DS0 Port	$ .735

An electronic copy of this Price Calculator is included on the CD under the Documentation directory under Models.

4. Main Distributing Frame Material Price Study

The Main Distributing Frame and associated equipment are the backbone for equipment mounts in the Central Office (C.O.). Vendor equipment (Lucent, Nortel, etc.) interfaces with the MDF in order to connect a subscriber to a line, a trunk, or a carrier.

The MDF fundamental study assumes the basic configuration is a metal frame, measuring eleven feet by six feet, with mounting blocks running vertically and horizontally. Each analog line requires one MDF and protector termination. Digital lines interface with the switch via T-1 links, with each line requiring two MDF and protector terminations. The MDF fundamental study develops MDF material prices for the following local loops:

2-wire or 4-wire copper, nonswitched
2-wire or 4-wire copper, switched
2-wire or 4-wire fiber, nonswitched (Universal DLC)
2-wire or 4-wire fiber, switched (integrated DLC)
ISDN
4-wire DS1 Digital copper, nonswitched
4-wire DS1 Digital copper, switched
2-wire or 4-wire Analog Line Port
Copper Loop/Port Combination

MDF Utilized Material Price Study Assumptions:

1. The forward-looking MDF configuration is 11' - 6" double-sided conventional framework.

2. Connectors (310 and 410 types) and Connecting Blocks (89 type) will be ordered through the BellSouth Turf Vendor Central Office Ordering Process.

3. Protectors and Continuity Plugs will be ordered through GTE Supply.

4. Projected Actual Fill for all MDF associated equipment, except for protectors and continuity plugs, is 85%. Projected actual fill for protectors and continuity plugs is 100%.

5. All loops entering the Central Office on copper facilities terminate at the MDF for protection and cross connection to other equipment.

6. Nonswitched UNE loops entering the Central Office on fiber optic facilities (Universal DLC) will have a nonprotected termination at the MDF for testing and cross connection to other equipment.

7. MDF costs will be developed on a "per-pair terminated" basis. Loops are terminated in connectors/protectors on the vertical side of the MDF. Office equipment, such as, the switch or connections to interoffice facilities, is terminated at connecting blocks on the horizontal side of the MDF.

8. The MDF framework, connecting block, tie-cable, cable rack and associated equipment to connect the CLEC space to the MDF is provided in the Collocation UNE elements.

9. The cost of all necessary mounting brackets and other miscellaneous hardware is included in the material cost of the appropriate item, e.g., framework, connector, etc.

10. The average stub length for 310-type connectors terminating copper loops is 100 feet. The 410-type connector associated with fiber loops has no stub.

11. The cable between the MDF and the C.O. switch and the terminal block to terminate this cable at the MDF is included in the Line Port cost.

12. All costs associated with running the cross connect jumper(s) between Connectors and Connecting Blocks are included in the work activities associated with provisioning a UNE and are recovered as nonrecurring costs.

An electronic copy of this Price Calculator is included on the CD under the Documentation directory under Models.

FLORIDA DOCKET NO. 000731-TP
SECTION 5
INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

BELLSOUTH REGION TELEPHONE PLANT INDEXES

The BellSouth Region Telephone Plant Indices (TPIs) are used in cost studies to estimate the change in the material price and/or installed investment from one year to a future year. The TPIs are price indices that measure the relative changes in the prices BellSouth pays for the construction of telephone plant between specific periods of time. A TPI is an average of prices, or of price relatives at specific points or periods of time, constructed for a specific purpose. It should also be noted that TPI forecasts are forecasts of price changes of equipment that is being installed. They are not intended to be forecasts of technology changes or productivity improvements.

Joel Popkin and Company, as BellSouth consultants, assists BellSouth's Network Department with the development of the TPIs. In general, the methodology uses econometric techniques to establish a mathematical relationship between the historical movement in each of the labor and materials components that make up the TPIs and the historical movement in the explanatory variables. The explanatory variables are usually aggregate measures of the U.S. economy, such as price deflators from the national income and product accounts, the U.S. union wage rate, copper prices and other macroeconomic variables. What these econometric techniques provide is a systematic, quantifiable statement of what has happened in the past. Use of those relationships implicitly makes the assumption that history will more or less repeat itself. It is important to re-estimate the relationships as new index values are added each year.

A summary of Labor TPIs and TPIs by account is included in Appendix B.

INVESTMENT INFLATION FACTORS

Over the life of an investment, inflation causes fluctuations in the forward-looking investment amount. Thus, the investment amount should be levelized over the time period in which the study results will be used. Investment inflation factors by account are used to trend plant investment in base year dollars to a levelized amount that is valid for a three to five year period. The investment inflation factors are the cumulative average of three years' projected inflation rates from the BellSouth Region TPIs. When the base year investment is multiplied by the investment inflation loading, the result is a forward-looking investment representative for a three to five year period.

A worksheet showing the development of the levelized Investment Inflation Factors used in these studies is included in Appendix B.

FLORIDA DOCKET NO. 000731-TP
SECTION 5
INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

IN-PLANT LOADING FACTORS

The In-Plant Loading factors add engineering and installation labor and miscellaneous equipment to the material price and/or vendor installed price, that is, the In-Plant Loading converts the material price to an installed investment. The installed investment is the dollar amount that is recorded in the capital accounts. In-Plant loadings are account specific. There are two types of in-plant loadings used in these studies: 1) Material Loading, 2) Telco Loading. The Material Loading is applied to a material price and the Telco Loading to the vendor-installed investment. The data sources are the 1998 State and Local Sales Taxes, Resource Tracking Analysis and Planning (RTAP) System, and Special Report/File 542 - 1998 Investments.

A summary of the In-Plant Loading factors used in these studies and worksheets showing their development are included in Appendix B.

SUPPORTING EQUIPMENT AND POWER LOADING FACTORS

Supporting Equipment and Power Loading factors are used to calculate the incremental investment for such items as power equipment (rectifiers, power supplies, batteries, some fuse panels and emergency power generators), distributing frames, ladders, tools, alarms and test sets, required to support an additional dollar of central office (CO) investment. The Supporting Equipment and Power Loadings are developed from investment data obtained from a 1998 Central Office Monthly Allocation Process (COMAP) extract of power and supporting equipment.

A summary worksheet showing the development of Supporting Equipment and Power Loadings is included in Appendix B.

LAND AND BUILDING LOADINGS

Land and Building Loadings are translators used to determine the amount of investment in land and building associated with central office investment. Ratios are developed between land investments and central office equipment investments and between building (central office) investments and central office equipment investments.

In order to develop these ratios, regulated investment dollars are taken from extracts from BellSouth financial systems for the years ending 1997 and 1998.

The EOY investments are averaged to develop an average investment level for 1998. The projected view of 1999 through 2002, from Network, is based on plant additions less retirements and is added to the 1998 EOY investment levels. Current Cost Factors are applied to average 1998 investment levels only. Projected net additions for 1999 through 2002 are added to represent the current forward looking period (2000 – 2002).

The 2000 through 2002 land and building projected investments are added, multiplied by the percent of land and building associated with central office equipment, and each is respectively divided by the three years of total central office equipment to derive the loading factors.

Worksheets showing the development of Land and Building Loading factors used in these studies are included in Appendix B.

POLE AND CONDUIT LOADINGS

Pole and conduit loadings are translators used to determine the amount of investment in poles and conduit associated with aerial and underground cable investment.

The pole loading is developed by comparing the investment in poles to the investment in aerial cable. A ratio is then developed that allows each dollar of aerial cable investment to include a fraction of the pole investment. The conduit loading is developed by comparing the investment in conduit to the investment in underground cable. A ratio is then developed that allows each dollar of underground cable investment to include a fraction of the conduit investment.

The regulated investment dollars used in developing these factors are taken from extracts from BellSouth financial systems for the years ending 1997 and 1998. The projected view of 1999 through 2002 received from Network is based on plant additions less retirements and is added to the 1998 EOY investment levels. Current Cost Factors are applied to 1998 average investment levels only. Projected net additions for 1999 through 2002 are added to represent the current forward looking period. The pole loading is developed by dividing three years cumulative pole investment by three years cumulative aerial cable investment. The conduit loading is developed by dividing three years cumulative conduit investment by three years cumulative underground cable investment.

A worksheet showing the Pole and Conduit Loadings development is included in Appendix B.

RTU FEE LOADING FACTOR (560C)

This investment loading factor computes the RTU fee investment for Central Office switching equipment (Field Reporting Code 377C). The RTU fee is classified as Account Code 2690 - 560C Intangible Software RTU Investment - Network Switching.

The loading factor represents the ratio of RTU fee capitalized investment to switch investment over the study period. The general procedure for developing the loading factor is as follows:

1. Determine from Company budget forecasts the expected dollar amount for network additions in 377C plant over the study period (2000-2002).

2. Determine from Company budget forecasts the expected dollar amount for network additions in 560C software over the study period (2000-2002).

3. Divide (2) by (1) to compute the RTU fee loading factor.

The RTU loading factor is applied to 377C material, when required, to determine the associated the capitalized RTU 560C material amount. This 560C material is then included as input into the BellSouth Cost Calculator.

A worksheet showing the RTU Fee Loading factor development is included in Appendix B.

ANNUAL COST FACTORS

GENERAL

Annual cost factors are translators used to determine the amount of recurring cost for one year associated with acquiring and using a particular investment. Annual cost factors were developed for each category of plant investment. When the dollar amount for a particular investment is multiplied by the annual cost factor for that particular category of plant investment, the product reflects the annual recurring cost incurred by BellSouth with respect to that particular investment. There are basically two types of cost associated with investment: capital-related costs and operating-related costs .

The initial purchase price of plant equipment and any installation costs are paid with a combination of investor supplied funds and retained earnings. The

investors who provide the "loan" may be either bondholders or stockholders. The plant placed must be able to generate enough revenues to cover capital costs associated with its placement and usage. Capital-related costs consist of three major categories: depreciation, cost of money, and income tax. The capital-related cost factors are developed using a PC based spreadsheet, the Capital Cost Calculator, which uses various financial data and plant investment characteristics to compute the annual capital costs by category of plant.

Plant investments must also be maintained to provide for continuing operations. Ordinary repairs and maintenance, as well as rearrangements and changes, are necessary costs for all categories of plant (except land) in order to provide proper service. These maintenance costs, as well as ad valorem taxes and other taxes must be covered by the revenues received from the use of the asset. The operating-related cost factors are developed using various spreadsheets, which basically compute the annual operating-related costs by category of plant, and divide that amount by the investment in that category of plant.

CAPITAL-RELATED COSTS

DEPRECIATION (book) - the allocation of the initial plant investment over the years of service provided by the plant. Depreciation is determined by analysis of survivor curve data. Survivor curves represent the survival pattern of plant investment. Specifically, for any year, depreciation is defined as the difference in the plant surviving at the beginning of the year less the amount of that same plant surviving at the end of the year. Survivor curve shapes for different classes of plant are determined by the respective Gompertz-Makeham c, G, and S parameters.

COST OF MONEY - the annual cost to the firm of the debt and equity on capital invested in the business. This annual cost is determined in the financial market as it represents the investors' expected return on their investment.

INCOME TAX - the composite of income taxes paid to the Federal and State governments based on the taxable net income of the company.

OPERATING-RELATED COSTS

PLANT SPECIFIC EXPENSE - the expense required to keep existing telephone plant, circuits, and service up to standards, as well as rents paid for facilities. This includes trouble clearing, rearrangements, and replacing defective elements.

AD VALOREM AND OTHER TAX - taxes levied by city and county governments based on the assessed value of property. This includes property taxes, capital stock taxes, and other taxes.

FACTOR DEVELOPMENT - CAPITAL COST

Depreciation is the allocation of the initial plant investment over the years of service provided by the plant. The method employed in these studies employs survivor curves as defined by the Gompertz-Makeham c, G, S parameters. The general form of the survivor curves, in log form, is:

$$P_x = P_0 + xS + G\left[\left(c^x\right) - 1\right],$$

where:

P_x = Proportion surviving at age x,

P_0 = Proportion surviving at age zero, and

x = Age.

The curve shape parameters describe a particular curve shape, along with an associated life. In practice, the parameters are determined by actuarial-type studies of classes of telephone plant.

The curves for specific classes of plant are rendered as tables of proportions surviving versus years in service. Depreciation ratios for specific years of service are determined by subtracting proportions surviving at the beginning and end of the years in question. Where the half-year convention is employed, proportions surviving may be expressed at intervals such as 0.5, 1.5, 2.5,etc. years.

Cost of Money is the amount of money that must be paid to investors for the use of investor-supplied funds. This amount to be paid investors is the annual cost to the company of the debt and equity capital invested in the company. Cost of money is determined in part by the financial market and, as it represents the investors' expected return on their investment, may differ considerably from the actual earnings a company generates. The overall cost of money rate provided by BellSouth Treasury depends on the cost of equity financing, the cost of debt financing, and the debt to equity ratio of the capital structure of the company. The overall cost of money rate is equivalent to the rate of return currently authorized by the Federal Communications Commission (FCC) and the rate of return referred to by the FCC in its First Report and Order, CC Docket 96-98.

Income tax expense is the federal and state taxes levied on "taxable income." For income tax purposes, what is considered gross income and what expenses are deductible are defined by laws and codes. The income tax factor is developed to reflect the income tax in two situations: 1) payment of dividends to

stockholders, which are neither tax deductions nor accounting expenses; and 2) and the existence of a tax-timing difference between book depreciation and tax depreciation. While interest to bondholders is book expense and deductible for income tax purposes, the federal government and most state governments levy a tax on the revenues, which are earned to compensate stockholders for the use of their money. A company must pay income taxes on the equity portion of return, but the debt portion is tax exempt. The timing differences for depreciation are the result of both different depreciable lives and different depreciation methods. In addition, the basis for tax depreciation may be different from the basis for accounting depreciation.

FACTOR DEVELOPMENT - OPERATING RELATED

PLANT SPECIFIC EXPENSE

The plant specific expense factor, which includes the cost of material used and direct labor, is a ratio that reflects the relationship between the expenses for plant category and the respective investment. The factor also includes maintenance-type expenses for existing plant that cannot be directly assigned to a given plant category, such as, transmission power. Certain expenses, such as service order activity, have been excluded from the appropriate categories. These costs are excluded because: 1) they should be separately identified for each service, or 2) they should be included in nonrecurring cost studies. The maintenance expenses incorporated in the Plant Specific Expense Factors include those associated with the following types of operations:

1. Inspecting and reporting on the condition of plant investment to determine the need for repairs, replacements, rearrangements and changes

2. Performing routine work to prevent trouble

3. Replacing items of plant other than retirement units

4. Rearranging and changing the location of plant not retired

5. Repairing material for reuse

6. Restoring the condition of plant damaged by storms, floods, fire and other casualties (other than the cost of replacing retirement units)

7. Inspecting after repairs have been made

8. Salaries, wages and expense associated with plant craft and work reporting engineers, as well as their immediate supervision and office support.

The plant specific expense factors are based on three years of projected expense and investment data. The 1998 expenses used in the study were pulled from the Cost Separations System (CSS). Rent expense is excluded from building expense; net rent (rent revenue less rent expense) is included in pole and conduit expenses. Projected view data was obtained from the Finance Regulatory Accounting Group for the 1999 through 2000 expenses and spread based on actual expenses. Service order-related expenses were excluded from the study because such expenses are recovered in a direct manner rather than through the use of a factor. The 2000 through 2002 projected expense amounts are added together and averaged to represent the average annual expenses for the projected period.

The investment dollars are derived from actual EOY 1997 and 1998 levels plus 1999 through 2002 projected net additions from the Network Budgets Group. The investment projections are based on plant additions less retirements added to the cumulative historical year. The actual EOY 1997 and EOY 1998 dollars were extracted from BellSouth financial systems. EOY 1997 and EOY 1998 investments are averaged to develop average 1998 amounts, current cost factors are applied, and then 1999 through 2002 net additions are added together to represent the projected period. The expenses are then divided by the investments, resulting in the unloaded plant specific expense factors. Power expense loadings are then added to the factors for central office equipment investment. These plant specific expense factor calculations result in a factor for each category of plant representative of the average expense per investment expected in the future for each plant category.

Worksheets showing the development of the Plant Specific Expense Factors used in these studies are included in Appendix B.

AD VALOREM AND OTHER TAXES

The ad valorem and other tax factor is an effective tax factor furnished by the BellSouth Tax Department. The BellSouth Tax Department develops the factor by calculating the ratio of certain tax expenses to the telephone plant in service, as follows:

$$\frac{\text{Accounts } 7240.1000 + 7240.3000 + 7240.9000}{\text{Telephone Plant In Service}}$$

Account 7240.1000 includes taxes levied upon the assessed value of property.

Account 7240.3000 includes taxes levied upon the value or number of shares of outstanding capital stock, upon invested capital, upon rate of dividends paid, etc.

Account 7240.9000 includes other nonincome, nonrevenue taxes such as municipal license taxes, state privilege taxes, state self-insurer's tax, etc.

A summary of ad valorem tax factors used in these studies is included in Appendix B.

GROSS RECEIPTS TAX FACTOR

Some states and municipalities tax the revenues that a company receives from services provided within the state/municipality. The taxes may be designed to fund such things as PSC fees, franchise taxes, license taxes, or other similar items, but because the taxes are levied on the basis of revenues, they are commonly referred to as a gross receipts tax. Unlike some taxes that are billed to the customer and flowed through to the taxing authority, a gross receipts tax is a cost of doing business to BellSouth.

The BellSouth Tax Department provides the effective tax rate at which BellSouth is charged by the taxing authority and that rate is "grossed up" to reflect the following formula:

$$\frac{\text{GROSS RECEIPTS TAX RATE}}{(1 - \text{GROSS RECEIPTS TAX RATE})}$$

A summary of gross receipts tax factors used in these studies is included in Appendix B.

DISCONNECT FACTORS

Disconnect factors are translators used to determine the costs associated with disconnecting a service. These factors are developed because there is a difference in time between when a service is disconnected and when BellSouth recovers this disconnect cost. Disconnect costs are typically included in the one-time up front service establishment charges. The customer is billed now for work that will be done in the future. However, the user has the option of developing disconnect costs under the assumption that these charges will apply at the time of disconnect.

The calculation of the disconnect factors is based on the following data: the expected life of the service being studied and an interest rate that is comparable to the highest rate BellSouth is required to pay its customers for customer deposit payments held by BellSouth. The disconnect factor inflates the labor cost to the period of the future disconnect and discounts these costs to the present. Disconnect factors are calculated by month for twelve years for the company on a regional basis. The data sources for these factors are the 1998 forecasted labor inflation rates from the BellSouth Region TPIs and a discount rate based on simple interest calculations.

If disconnect costs are to be collected at the time of disconnect, the factor reflects inflation only. The costs are not discounted to the present.

Worksheets that develop the Disconnect Factors used in these studies are included in Appendix B.

LABOR RATES

Labor rates for specific work groups are developed annually based on extracts of previous year's data from the Financial Front End System. This extract collects labor expense and hours and a PC application processes the information to produce labor rates. During processing, the actual costs for a given work group are accumulated by expenditure type (e.g., direct labor productive, premium, other employee, etc.). These actual costs are divided by the actual hours (classified productive hours for plant and engineering work groups and total productive hours for cost groups) reported by work group to determine the basic rates. The base year of labor rate data collection was the 1998 calendar year. A labor inflation factor is developed from the BellSouth Region TPIs and is applied to inflate these rates to the study period 2000-2002. The actual labor rate inflation development process can be seen under the inflation factor tab of the Labor Rate file in Appendix B.

LABOR RATE COMPONENTS:
The following are various cost components that make up labor rates:

DIRECT SALARIES AND WAGES

1. Direct Labor - Productive (RESOURCE TYPE CODE (RTC) 111, 121)
   Represents the wage and salary costs associated with work reporting employees for regularly scheduled time and overtime spent performing productive work. Also includes the costs of salaries paid to management employees when performing productive work. Classified and unclassified productive hours are used as the basis for Direct Labor Costs.

2. Direct Labor - Premium (RTC 122)
   Represents the wage and salary costs associated with premium hours paid for hours worked beyond the normally scheduled work period.

3. Direct Labor - Other Employee (RTC 199, 19B, 19C, 193)
   Covers the costs associated with the periodic incentive compensation payments made to management employees based on corporate service and financial performance, the annual bonus paid to non-management employees, all costs associated with commissions paid to employees, cash awards paid for any approved program, etc.

4. Direct Labor - Annual Paid Absence (RTC 132, 19E)
   Identifies the cost of payments to be made over the year to occupational work reporting employees for accrued costs of holidays, vacations, and excused days.

5. Direct Administration (RTC 111, 121, 122, 199, 19B, 19C, 19E, 193, 132)
   Identifies the costs of salaries paid during the month to the first level of supervision responsible for supervising occupational work reporting employees, and salaries and wages paid to employees and immediate supervisors who perform basic office services for occupational work reporting employees. Also included are the wages paid to occupational work reporting employees loaned to perform supervisory or clerical functions.

6. Other Tools - Salaries (RTC CQR)
   Identifies the salary portion of the distributed costs associated with tools.

7. Motor Vehicles - Salaries (RTC CQM)
   Identifies the salary portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operations expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

OTHER DIRECT

1. Direct Labor - Other Costs (Various RTCs)
   Identifies the costs incurred for office, traveling and other costs of employees whose wage and salary costs are direct labor.

2. Other Tools - Benefits (RTC CQS)
   Identifies the distributed benefits costs associated with tools.

3. Other Tools - Rents (RTC CQK)
   Identifies the distributed rent costs associated with tools.

4. Other Tools - Other (RTC CQL)
   Identifies the distributed other expense costs associated with tools.

5. Motor Vehicles - Benefits (RTC CQN)
   Identifies the benefits portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operations expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

6. Motor Vehicle - Rents (RTC CQP)
   Identifies the rents portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operation expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

7. Motor Vehicle - Other (RTC CQQ)
   Identifies the other costs portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operations expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

8. Benefits (RTC KB1)
   Identifies amounts for the payroll related benefits and taxes. These costs include pension accruals; company matching portion of savings plan; dental, medical, and group insurance plan reimbursements; and company portion of social security and unemployment payroll taxes.

TOTAL PRODUCTIVE HOURS

1. Classified Productive Hours
   Hours of work reporting employees which are reported to final accounting classifications.

2. Unclassified Productive Hours
   The working hours of plant work reporters devoted to activities of such a general nature as to not be assignable to specific accounting classifications. Unclassified activities include: attending conferences or meetings (including travel time) which are general in nature; attending first aid classes or safety meetings; paid time spent on union activities; paid time spent on quality of work life activities; time spent in a classroom (including travel time) for general or job specific training; and other unclassified activities such as attending assessment centers.

Labor Rate worksheets are included in Appendix B.

SHARED FACTORS AND COMMON FACTOR DEVELOPMENT AND APPLICATION

Process Overview
In order to develop factors that reflect a distribution of a) shared costs to distinct network elements or facilities and b) common costs that span the activities of the business, BellSouth designed a process which complies with FCC pronouncements. This process employs cost assignments, where possible, based on the cost attribution principles underlying the Cost Allocation Manual (CAM) approved by the FCC. These principles provide a structural "cost causative" basis for assigning costs to network related plant or to non-network related groupings (Common, Non-Recurring Costs, Retail, etc.).

Base Period Data
Base period cost profile data for regulated 1998 expenses and 1998 average investment amounts were extracted from BellSouth's financial records. In addition, the related salary and wage amounts were retrieved for use in the apportionment processes. The data was retrieved by Account, Field Reporting Code/Subsidiary Record Category (FRC/SRC), Cost Pool, Cost Sub-Pool, Expense Matrix Indicator (EMI), and Account Type as appropriate.

STEP 1. Development of 2000-2002 Average Annual Costs
Projection factors were applied to the base period data at a cost pool/sub-pool level to develop average annual forward-looking costs for the 2000-2002 period. As a first step in this process, the 1998 expenses and salary and wage amounts were multiplied by the 2000-2002 Expense/Salary & Wage Development Factors to develop the related average annual expenses and salary and wage amounts for the 2000-2002 period. Next, 1998 averaged investment amounts were multiplied by the 2000-2002 Investment Development Factors to develop the average 2000-2002 investment levels. Next, the 2000-2002 average investment levels were converted to average annual capital related costs by applying the Capital Cost and Ad Valorem Factors. The final process in this step was the identification and segregation of all nonrecurring costs to prevent them from being impacted by any recurring costs.

After the expenses and investments have been converted into forward-looking costs in Step 1, the next steps assigned these costs to cost objectives such as wholesale network investments, retail, nonrecurring, etc.

STEP 2. Reclassification
The next operation identified those accounts where there were direct, cost causative relationships between expense accounts and related investment accounts, and performed a reclassification process to combine the expenses and capital costs of the related accounts. As an example, Account 6112 Motor Vehicle maintenance expense was combined with Account 2112 Motor Vehicle capital related costs. Most of the plant specific expenses have a direct, cost-causative relationship with either a general support or network investment account.

STEP 3. Primary Attribution of Cost
After the above-referenced reclassifications, the remaining expenses and support asset costs (Accounts 61XX, 65XX, 66XX, 67XX, 1220, 21XX, and 26XX) were assigned by applying factors based on the cost attribution principles underlying the CAM. Apportionment factors were developed on a cost pool/sub-pool basis reflecting salary and wage relationships, investment relationships, or expense relationships.

STEP 4. Secondary Reclassification
Following the first iteration of cost assignments, a reclassification of assigned costs was made to associate costs which, by their nature, were assignable to related accounts or to final non-network related groupings.
During the first iteration of cost assignments, some apportionments were made to support type accounts; and therefore, a second iteration of cost assignment was required to appropriately distribute support type costs on a cost causative basis. The second iteration of cost assignment began in this step and included only computer costs (Account 6124).

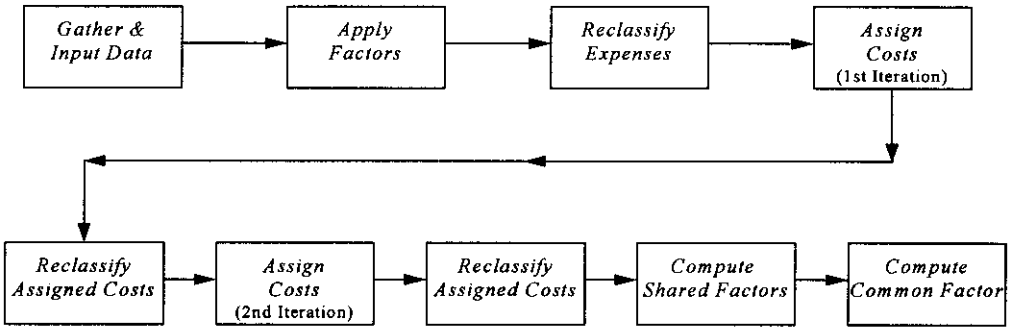
STEP 5. Secondary Attribution of Costs
This step continued the distribution of support type costs referred to in Step 4 above. It included the assignment of provisioning expenses (Account 6512), and network operations expenses (Accounts 653X).

STEP 6. Reclassification and Factors Development
After the second iteration of cost assignment, a final reclassification was required to associate the remaining costs with either a network related account or with a nonnetwork related grouping. The cost assignments that were associated with network related accounts were then divided by the related 2000-2002 investment amounts in order to develop the shared factors

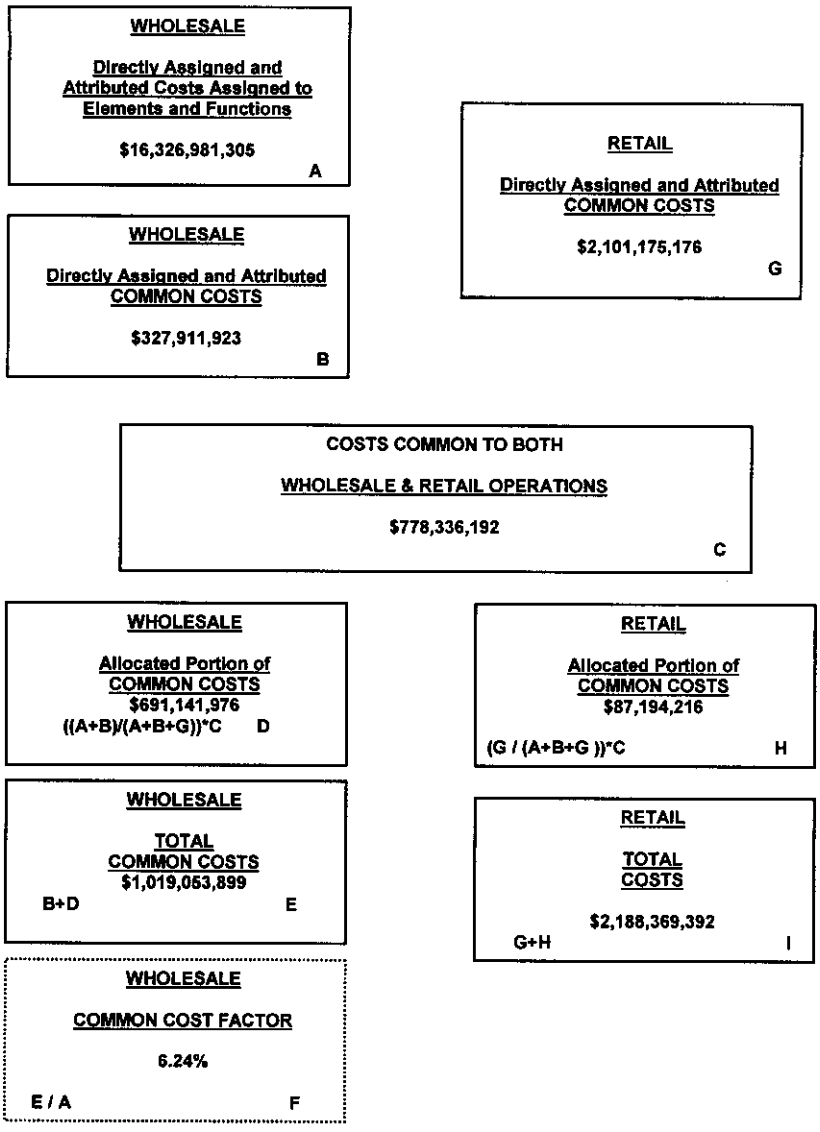
In the steps of the process outlined above, some costs, though common in nature, have wholesale/retail attributions that facilitate an assignment to the wholesale or retail category. These costs are referred to as directly assigned common costs. Other common costs, having no reasonable cost causation basis, were allocated to the wholesale and retail categories on the basis of the relationship between total wholesale costs and total retail costs.

Total wholesale common costs were developed by summing the directly assigned wholesale common costs and the allocated wholesale common costs. The common cost factor was developed by dividing the total wholesale common costs by the total wholesale costs excluding the common portion (Nonrecurring costs were included with the total wholesale costs to form the denominator).

Flow Diagram of the Calculation of the Shared Cost Factors and the Common Cost Factor



CALCULATION OF COMMON COST FACTOR
Note: The amounts and percentages on this diagram are illustrative in nature and may or may not reflect the amounts or results incorporated in this filing.



FLORIDA DOCKET NO. 000731-TP
SECTION 5
INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

Inputs To The Application

The inputs to the Shared and Common Cost Application consist of the following:

1998 regulated expenses
1998 averaged regulated investment amounts
1998 regulated salary and wage amounts
2000-2002 Expense/S&W Development Factors
Capital Cost Factors
Ad Valorem Factors
2000-2002 Investment Development Factors
Service Order Proportion Factors
Wholesale/Retail Factors for A/C 661X Marketing
Wholesale/Retail Factors for A/C 6623 Customer Services

The 1998 expense and investment data provides a foundation or template to drive the 2000-2002 projected expenses and investment to appropriate cost pool/sub pool assignments. The salary and wage (S&W) amounts are used in the apportionment processes performed by the application. The 1998 salary and wage amounts were input into the application and were utilized in appropriate salary and wage attribution bases for assigning attributable costs.

The 2000-2002 Expense/S&W Development factors that were input to the shared and common application are a reflection of the relationships of projected average annual expense for the 2000-2002 period to the actual 1998 expense amounts on an account level basis. Estimates of expenses for each of the three years in the 2000-2002 period were developed to reflect BellSouth's projected operations. These expenses were averaged and utilized in the 2000-2002 Expense/S&W factors described above.

The 2000-2002 Investment Development factors were calculated by restating the 1998 investment based on historical cost to investment based on current prices. In addition, any planned additions and retirements were considered in arriving at an investment reflecting the forward-looking costs required by the FCC. Once the investment was calculated for each year, it was averaged for the period 2000-2002. The 2000-2002 averaged investment by account was divided by the 1998 investment by account to produce the 2000-2002 Investment Development factors.

Capital Cost and Ad Valorem Factors include calculations for Depreciation, Cost of Money, Income Taxes, and Ad Valorem Taxes. The Capital Cost Calculator computes the Capital Cost factors used in the Shared and Common Cost Application. For details concerning the calculations of these factors, see the Capital Cost Calculator (Section 4) and Ad Valorem Costs (Section 5).

The Service Order Proportion factors are used to derive the non-recurring costs associated with Central Office Equipment Expenses (62XX accounts), Terminal Equipment Expenses (63XX accounts), and Cable and Wire Expenses (64XX accounts). Actual service order work hours by network related plant were retrieved and a relationship to total work hours was developed for each type of plant. The hours were extracted on a study basis. For details concerning the calculations, see Plant Specific Costs (Section 5).

The Wholesale/Retail Factors relating to Accounts 6611, 6612, 6613, and 6623 reflected an analysis of each account by cost pool/sub pool to determine the nature of the expenses and how they would be reflected in a wholesale versus retail company. The study was often carried out at a Work ID level. Based on the analysis, an assignment to wholesale or retail was specified for each cost pool/sub pool. At the conclusion of the analysis, the total wholesale portion was divided by the account total to arrive at a wholesale percentage. A similar calculation was done for determining the retail percentage.

BellSouth Shared and Common Cost Application

The BellSouth Shared and Common Cost Application is a menu driven application used in calculating the Common Cost Factor and the Shared Cost Factors. Users are guided through the process by selecting from easy to understand choices.

The user interface for the Shared and Common Cost Application allows for editing inputs, viewing reports of the outputs, examining the underlying methodology of the Application, and saving and loading edits as scenarios. The Application provides help screens and descriptions of processes to guide the user in understanding the process, creating new scenarios and reviewing the results/outputs of the process. The application processes in either of two modes. By selecting SETTINGS on the user interface main screen, the user may process the application in steps or all at once. The Batch mode processes the data without allowing the user to view results at various stages of the process. The Interactive mode allows the user to access data at various stages of the process and provides a description of the step being performed.

Worksheets supporting the development of the Shared and Common Cost Factors used in these studies are included in Appendix B.

FLORIDA DOCKET NO. 000731-TP
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

INTRODUCTION

This section contains descriptions of cost elements and an overview of the study process for each category of elements studied by BellSouth.

The following is a listing of the unbundled network cost elements provided in this filing package. Each cost element is represented by a designated cost element number that is referenced throughout the studies. Also provided is the file name of the Microsoft Excel spreadsheet in which inputs and workpapers for each element can be found. These input spreadsheets and workpapers are being furnished in electronic format only. The input spreadsheets are contained on the CD-ROM included in Appendix C. They are located under the investment sub-directory listed under each scenario.

Following this listing are narratives for each category of cost elements describing the elements, study technique, and specific study assumptions.

FLORIDA DOCKET NO. 000731-TP
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

		Filename
A.0	**UNBUNDLED LOCAL LOOP**	
H.1	**PHYSICAL COLLOCATION**	
H.1.1	Physical Collocation - Application Cost	FIphycol.xls
H.1.5	Physical Collocation - Cable Installation Cost Per Cable	FIphycol.xls
H.1.6	Physical Collocation - Floor Space, Per Sq. Ft.	FIphycol.xls
H.1.7	Physical Collocation - Cable Support Structure, Per Entrance Cable	FIphycol.xls
H.1.8	Physical Collocation - Power per Fused Amp	FIphycol.xls
H.1.9	Physical Collocation - 2-wire Cross Connects	FIphycol.xls
H.1.10	Physical Collocation - 4-wire Cross Connects	FIphycol.xls
H.1.11	Physical Collocation - DS1 Cross Connects	FIphycol.xls
H.1.12	Physical Collocation - DS3 Cross Connects	FIphycol.xls
H.1.13	Physical Collocation - 2 Wire POT Bay	FIPCpot.xls
H.1.14	Physical Collocation - 4 Wire POT Bay	FIPCpot.xls
H.1.15	Physical Collocation - DS1 POT Bay	FIPCpot.xls
H.1.16	Physical Collocation - DS3 POT Bay	FIPCpot.xls
H.1.17	Physical Collocation - Security Escort - Basic, Per Half Hour	FIphycol.xls
H.1.18	Physical Collocation - Security Escort - Overtime, Per Half Hour	FIphycol.xls
H.1.19	Physical Collocation - Security Escort - Premium, Per Half Hour	FIphycol.xls
H.1.23	Physical Collocation - Welded Wire Cage - First 100 Sq. Ft.	FIphycol.xls
H.1.24	Physical Collocation - Welded Wire Cage - Add'l 50 Sq. Ft.	FIphycol.xls
H.1.31	Physical Collocation - 2-fiber Cross Connect	FIphycol.xls
H.1.32	Physical Collocation - 4-fiber Cross Connect	FIphycol.xls
H.1.33	Physical Collocation - 2-fiber POT Bay	FIphycol.xls
H.1.34	Physical Collocation - 4-fiber POT Bay	FIphycol.xls
H.1.37	Physical Collocation - Security Access System - Security System, per Central Office, Per Square Foot	FIphycol.xls
H.1.38	Physical Collocation - Security Access system - New Access Card Activation, per Card	FIphycol.xls
H.1.39	Physical Collocation - Security Access System - Administrative Charge, Existing Card, per Card	FIphycol.xls
H.1.40	Physical Collocation - Security Access System - Replace Lost or Stolen Card, per Card	FIphycol.xls
H.1.41	Physical Collocation - Space Preparation - C.O. Modification per square ft.	FIphycol.xls
H.1.42	Physical Collocation - Space Preparation - Common Systems Modification per square ft. - Cageless	FIphycol.xls
H.1.43	Physical Collocation - Space Preparation - Common Systems Modification - per Cage	FIphycol.xls
H.1.45	Physical Collocation - Space Prep - Firm Order Processing	FIphycol.xls
H.1.46	Physical Collocation - Application Cost - Subsequent	FIphycol.xls
H.1.47	Physical Collocation - Space Availability Report per C.O.	FIphycol.xls
H.1.48	Physical Collocation - Co-Carrier Cross-Connect - Fiber Cable Support Structure	FIphycol.xls
H.1.49	Physical Collocation - Co-Carrier Cross-Connect - Copper/Coaxial Cable Support Structure	FIphycol.xls

H.1.50	Physical Collocation - 120V, Single Phase Standby Power Cost	Flphycol.xls
H.1.51	Physical Collocation - 240V, Single Phase Standby Power Cost	Flphycol.xls
H.1.52	Physical Collocation - 120V, Three Phase Standby Power Cost	Flphycol.xls
H.1.53	Physical Collocation - 277V, Three Phase Standby Power Cost	Flphycol.xls
H.1.54	Physical Collocation - Security Access - Initial Key, per Key	Flpckey.xls
H.1.55	Physical Collocation - Security Access - Key, Replace Lost or Stolen Key, per Key	Flpckey.xls

H.2	**VIRTUAL COLLOCATION**	
H.2.1	Virtual Collocation - Application Cost	Flvcoll.xls
H.2.2	Virtual Collocation - Cable Installation Cost Per Cable	Flvcoll.xls
H.2.3	Virtual Collocation - Floor Space Per Sq. Ft.	Flvcoll.xls
H.2.4	Virtual Collocation - Power per Fused Amp	Flvcoll.xls
H.2.5	Virtual Collocation - Cable Support Structure, Per Entrance Cable	Flvcoll.xls
H.2.6	Virtual Collocation - 2-wire Cross Connects	Flvcoll.xls
H.2.7	Virtual Collocation - 4-wire Cross Connects	Flvcoll.xls
H.2.8	Virtual Collocation - DS1 Cross Connects	Flvcoll.xls
H.2.9	Virtual Collocation - DS3 Cross Connects	Flvcoll.xls
H.2.10	Virtual Collocation - Security Escort - Basic, Per Half Hour	Flvcoll.xls
H.2.11	Virtual Collocation - Security Escort - Overtime, Per Half Hour	Flvcoll.xls
H.2.12	Virtual Collocation - Security Escort - Premium, Per Half Hour	Flvcoll.xls
H.2.16	Virtual Collocation - 2-Fiber Cross Connects	Flvcoll.xls
H.2.17	Virtual Collocation - 4-Fiber Cross Connects	Flvcoll.xls
H.2.20	Virtual Collocation - Maintenance of Service - Basic, per Half Hour	Flvcoll.xls
H.2.21	Virtual Collocation - Maintenance of Service - Overtime, per Half Hour	Flvcoll.xls
H.2.22	Virtual Collocation - Maintenance of Service - Premium, per Half Hour	Flvcoll.xls

H.3	**ASSEMBLY POINT**	
H.3.1	Assembly Point: 2-Wire Cross Connects	FLAsmbPT.xls
H.3.2	Assembly Point: 4-Wire Cross Connects	FLAsmbPT.xls
H.3.3	Assembly Point: DS-1 Cross Connects	FLAsmbPT.xls

H.4	**ADJACENT COLLOCATION**	
H.4.1	Adjacent Collocation - Space Cost per Sq. Ft.	Fladjphc.xls
H.4.2	Adjacent Collocation - Electrical Facility Cost per Linear Ft.	Fladjphc.xls
H.4.3	Adjacent Collocation - 2-Wire Cross-Connects	Fladjphc.xls
H.4.4	Adjacent Collocation - 4-Wire Cross-Connects	Fladjphc.xls
H.4.5	Adjacent Collocation - DS1 Cross-Connects	Fladjphc.xls
H.4.6	Adjacent Collocation - DS3 Cross-Connects	Fladjphc.xls
H.4.7	Adjacent Collocation - 2-Fiber Cross-Connect	Fladjphc.xls
H.4.8	Adjacent Collocation - 4-Fiber Cross-Connect	Fladjphc.xls
H.4.9	Adjacent Collocation - Application Cost	Fladjphc.xls
H.4.16	Adjacent Collocation - 120V, Single Phase Standby Power Cost per AC Breaker Amp	Fladjphc.xls

H.4.17	Adjacent Collocation - 240V, Single Phase Standby Power Cost per AC Breaker AMP	Fladjphc.xls
H.4.18	Adjacent Collocation - 120V, Three Phase Standby Power Cost per AC Breaker AMP	Fladjphc.xls
H.4.19	Adjacent Collocation - 277V, Three Phase Standby Power Cost per AC Breaker AMP	Fladjphc.xls
H.6	**PHYSICAL COLLOCATION IN THE REMOTE TERMINAL (RT)**	
H.6.1	Physical Collocation in the RT - Application Fee	FLCollRT.xls
H.6.2	Physical Collocation in the Remote Terminal (RT) per Bay / Rack:	FLCollRT.xls
H.6.3	Physical Collocation in the RT - Security Access - Key	FLCollRT.xls
H.6.4	Physical Collocation in the RT - Space Availability Report per premises requested	FLCollRT.xls
H.6.5	Physical Collocation in the RT- Remote Site CLLI Code Request, per CLLI Code Requested	FLCollRT.xls
H.7	**COLLOCATION CABLE RECORDS**	
H.7.1	Collocation Cable Records - per cable record	FLCollCR.xls
H.7.2	Collocation Cable Records - VG/DS0 Cable, per cable record	FLCollCR.xls
H.7.3	Collocation Cable Records - VG/DS0 Cable, per each 100 pair	FLCollCR.xls
H.7.4	Collocation Cable Records - DS1, per T1TIE	FLCollCR.xls
H.7.5	Collocation Cable Records - DS3, per T3TIE	FLCollCR.xls
H.7.6	Collocation Cable Records - Fiber Cable, per cable record	FLCollCR.xls
H.8	**VIRTUAL COLLOCATION IN THE REMOTE TERMINAL (RT)**	
H.8.1	Virtual Collocation in the RT - Application Fee	FLVCRT.xls
H.8.2	Virtual Collocation in the Remote Terminal (RT) per Bay / Rack:	FLVCRT.xls
H.8.3	Virtual Collocation in the RT - Space Availability Report per premises requested	FLVCRT.xls
H.8.4	Virtual Collocation in the RT- Remote Site CLLI Code Request, per CLLI Code Requested	FLVCRT.xls
J.4	**LINE SHARING SPLITTER - DATA**	
J.4.1	Line Sharing Splitter - per Splitter System 96-Line Capacity in the Central Office	FLLineSh.xls
J.4.2	Line Sharing Splitter - per Splitter System 24-Line Capacity in the Central Office	FLLineSh.xls
J.4.3	Line Sharing Splitter - per Line Activation in the Central Office	FLLineSh.xls
J.4.4	Line Sharing Splitter per Subsequent Activity per Line Rearrangement	FLLineSh.xls
J.4.6	Line Sharing - per CLEC/DLEC Owned Splitter in the Central Office - per LSOD	FLLineSh.xls
J.4.7	Line Sharing - per CLEC/DLEC Owned Splitter in the Central Office - per occurrence of each group of 24 lines (48 pairs)	FLLineSh.xls

FLORIDA DOCKET NO. 000731-TP
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

H.0 COLLOCATION
H.0 COLLOCATION
H.1 PHYSICAL COLLOCATION
H.1.1 PHYSICAL COLLOCATION - APPLICATION COST - INITIAL
H.1.5 PHYSICAL COLLOCATION - CABLE INSTALLATION
H.1.6 PHYSICAL COLLOCATION - FLOOR SPACE PER SQ. FT.
H.1.7 PHYSICAL COLLOCATION - CABLE SUPPORT STRUCTURE
H.1.8 PHYSICAL COLLOCATION - POWER PER FUSED AMP
H.1.9 PHYSICAL COLLOCATION - 2-WIRE CROSS-CONNECTS
H.1.10 PHYSICAL COLLOCATION - 4-WIRE CROSS-CONNECTS
H.1.11 PHYSICAL COLLOCATION - DS1 CROSS-CONNECTS
H.1.12 PHYSICAL COLLOCATION - DS3 CROSS-CONNECTS
H.1.13 PHYSICAL COLLOCATION - 2-WIRE POT BAY
H.1.14 PHYSICAL COLLOCATION - 4-WIRE POT BAY
H.1.15 PHYSICAL COLLOCATION - DS1 POT BAY
H.1.16 PHYSICAL COLLOCATION - DS3 POT BAY
H.1.17 PHYSICAL COLLOCATION - SECURITY ESCORT - BASIC, PER HALF HOUR
H.1.18 PHYSICAL COLLOCATION - SECURITY ESCORT - OVERTIME, PER HALF HOUR
H.1.19 PHYSICAL COLLOCATION - SECURITY ESCORT - PREMIUM, PER HALF HOUR
H.1.23 PHYSICAL COLLOCATION - WELDED WIRE CAGE - FIRST 100 SQ. FT.
H.1.24 PHYSICAL COLLOCATION - WELDED WIRE CAGE - ADD'L 50 SQ. FT.
H.1.31 PHYSICAL COLLOCATION - 2-FIBER CROSS-CONNECT
H.1.32 PHYSICAL COLLOCATION - 4-FIBER CROSS-CONNECT
H.1.33 PHYSICAL COLLOCATION - 2-FIBER POT BAY
H.1.34 PHYSICAL COLLOCATION - 4-FIBER POT BAY
H.1.37 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM – SECURITY SYSTEM, PER CENTRAL OFFICE, PER SQUARE FOOT
H.1.38 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM - NEW ACCESS CARD ACTIVATION, PER CARD
H.1.39 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM – ADMINISTRATIVE CHARGE, EXISTING CARD. PER CARD
H.1.40 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM – REPLACE LOST OR STOLEN CARD, PER CARD
H.1.41 PHYSICAL COLLOCATION - SPACE PREPARATION - C.O. MODIFICATION PER SQUARE FT.
H.1.42 PHYSICAL COLLOCATION - SPACE PREPARATION - COMMON SYSTEMS MODIFICATION PER SQUARE FT. - CAGELESS
H.1.43 PHYSICAL COLLOCATION - SPACE PREPARATION - COMMON SYSTEMS MODIFICATION PER CAGE

H.1.45 PHYSICAL COLLOCATION - SPACE PREPARATION - FIRM ORDER PROCESSING
H.1.46 PHYSICAL COLLOCATION - APPLICATION COST - SUBSEQUENT
H.1.47 PHYSICAL COLLOCATION - SPACE AVAILABILITY REPORT PER C.O.
H.1.48 PHYSICAL COLLOCATION - CO-CARRIER CROSS-CONNECT - FIBER CABLE SUPPORT STRUCTURE
H.1.49 PHYSICAL COLLOCATION - CO-CARRIER CROSS-CONNECT - COPPER/COAXIAL CABLE SUPPORT STRUCTURE
H.1.50 PHYSICAL COLLOCATION - 120V, SINGLE PHASE STANDBY POWER COST
H.1.51 PHYSICAL COLLOCATION - 240V, SINGLE PHASE STANDBY POWER COST
H.1.52 PHYSICAL COLLOCATION - 120V, THREE PHASE STANDBY POWER COST
H.1.53 PHYSICAL COLLOCATION - 277V, THREE PHASE STANDBY POWER COST
H.1.54 PHYSICAL COLLOCATION - SECURITY ACCESS - INITIAL KEY, PER KEY
H.1.55 PHYSICAL COLLOCATION - SECURITY ACCESS - KEY, REPLACE LOST OR STOLEN KEY, PER KEY

Element Description

A physical collocation arrangement provides a CLEC with an efficient means for connection to the BellSouth network.

Physical Collocation provides for the installation of collocation-owned equipment and facilities within leased floor space in BellSouth Central Offices for the purpose of connecting to the BellSouth network to the extent such collocation is technically feasible and space is available. The collocator places its equipment in leased floor space. The collocator may choose a caged or cageless arrangement. BellSouth will build a wire cage space enclosure. However, the CLEC does not have to purchase the space enclosure i.e. cage from BellSouth. Two types of power are offered, power per fused amp and AC power, where the collocator provides his own DC power plant.

Cross-connects are purchased to access BellSouth's network. They are available as 2-wire, 4-wire, DS1, DS3, 2-fiber and 4-fiber cross connect. The distribution frame serves as a point of demarcation between the collocator's equipment and BellSouth's network. The CLEC will provide the cable from the BellSouth frame to his collocation space.

The Point of Presence (POT) Bay is a cross connect frame that is placed on the collocator's cage or outside of his space. BellSouth no longer utilizes the POT Bay as a demarcation point. POT Bay's are sold as 2-wire, 4-wire, DS1, DS3, 2-fiber and 4-fiber cross connect connections. There is no nonrecurring cost associated with POT Bays. The purchase of a Point of Termination bay (POT bay) is optional.

The security access system consists of card readers that are installed at central office sites for the purpose of allowing the collocator access to their collocation space 24 hours a day, 7 days a week without the need of a security escort. A card reader access system allows entry to the central office with an approved card while tracing and recording the times of entry of the cardholder. The card reader access system is needed at every BellSouth Central Office with physical collocation to secure the central office and ensure the integrity of the public switched network. If the collocator chooses not to purchase security access with a card or key access, a security escort is available on a per ½ hour basis. BellSouth also offers a space availability report upon request.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

Study Assumptions

- Only the cross connects can be ordered on an electronic basis.
- A cross connect will always be ordered with either an unbundled element or interconnection order.
- For the security access system two card readers will be deployed in each central office.
- BellSouth is one of the users of the security access system.
- A card is required for each person desiring entrance to a central office. Additional offices may be added to the same card of that person by applying an administrative change charge.

H.2.0 VIRTUAL COLLOCATION
H.2.1 VIRTUAL COLLOCATION - APPLICATION COST
H.2.2 VIRTUAL COLLOCATION - CABLE INSTALLATION COST PER CABLE
H.2.3 VIRTUAL COLLOCATION - FLOOR SPACE PER SQ. FT.
H.2.4 VIRTUAL COLLOCATION - POWER, PER FUSED AMP
H.2.5 VIRTUAL COLLOCATION - CABLE SUPPORT STRUCTURE, PER ENTRANCE CABLE
H.2.6 VIRTUAL COLLOCATION - 2-WIRE CROSS CONNECTS
H.2.7 VIRTUAL COLLOCATION - 4-WIRE CROSS CONNECTS
H.2.8 VIRTUAL COLLOCATION - DS1 CROSS CONNECTS
H.2.9 VIRTUAL COLLOCATION - DS3 CROSS CONNECTS
H.2.10 VIRTUAL COLLOCATION - SECURITY ESCORT - BASIC, PER HALF HOUR
H.2.11 VIRTUAL COLLOCATION - SECURITY ESCORT - OVERTIME, PER HALF HOUR
H.2.12 VIRTUAL COLLOCATION - SECURITY ESCORT - PREMIUM, PER HALF HOUR
H.2.16 VIRTUAL COLLOCATION - 2-FIBER CROSS CONNECT
H.2.17 VIRTUAL COLLOCATION - 4-FIBER CROSS CONNECT
H.2.20 VIRTUAL COLLOCATION - MAINTENANCE IN THE CO - BASIC, PER HALF HOUR
H.2.21 VIRTUAL COLLOCATION - MAINTENANCE IN THE CO - OVERTIME, PER HALF HOUR
H.2.22 VIRTUAL COLLOCATION - MAINTENANCE IN THE CO - PREMIUM, PER HALF HOUR

Element Description

Virtual Collocation provides for the installation of collocator-owned equipment and facilities in BellSouth Central Offices for the purpose of connecting to the BellSouth network. The virtual collocator arrangements are located in the BellSouth equipment line-up. The Collocator applies for virtual collocation by submitting an application. Collocators will place a private fiber entrance facility from outside the central office to an interconnection point designated by BellSouth. A cable installation nonrecurring cost per cable will apply if this work is performed by BellSouth. A certified vendor completes the wiring between the collocator equipment and BellSouth equipment. Cable Support Structure per Entrance Cable, a monthly cost, provides for the structure housing this cable. The Collocator will purchase floor space and power per fused amp, both monthly costs. Cross-connects are purchased to access BellSouth's network. They are available as 2-wire, 4-wire, DS1, DS3, 2-fiber and 4-fiber cross connects. The cross connects consist of a monthly and nonrecurring cost. The CLEC will

provide the cross connect cable from the BellSouth frame to his equipment. The Frame serves as a point of demarcation between the collocator's equipment and BellSouth's network. When access is needed a security escort is available on a per ½ hour basis.

With virtual collocation, BellSouth maintains the collocator's equipment in the central office.
When maintenance is needed it is billed as a nonrecurring cost per half-hour as basic, overtime or premium time depending on the time period.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

Study Assumptions

- Only the cross connects can be ordered on an electronic basis.
- A cross connect will always be ordered with either an unbundled network element or an interconnection order.

H.3.0 ASSEMBLY POINT
H.3.1 ASSEMBLY POINT - 2-WIRE CROSS CONNECTS
H.3.2 ASSEMBLY POINT - 4-WIRE CROSS CONNECTS
H.3.3 ASSEMBLY POINT - DS1 CROSS CONNECTS

Element Description

An assembly point provides an alternate method for CLECs to connect to BellSouth's unbundled network elements (UNEs). By offering the CLECs the ability to recombine UNEs themselves at an assembly point location, the CLECs can create UNE combinations to provide local exchange service or to deliver dial tone to loops served by a remote office.

The assembly point cross connects provide access to 2-wire, 4-wire and DS1 UNEs. The assembly point cross connect cost is expressed on a monthly and nonrecurring basis per cross connect. A cross connect is required for each UNE in the combination established by the CLEC. The assembly point is established as a stand alone cross connect frame physically separate from the existing office distributing frame/panel. The costs reflect the equipment needed to connect the BellSouth frame where the UNEs are terminated to the assembly point frame where the CLEC will place the jumper connecting the UNEs together. The CLECs will supply any jumpers or patch cords to connect unbundled network elements together at the assembly point frame. The assembly point cost elements are as follows:

H.3.1 Assembly Point: 2–Wire Cross Connects
The 2–wire cross connect runs from the distributing frame to the assembly point frame. It is assumed that one hundred and fifty feet of cable rack and a 100 pair tie cable are required to connect the frames. The cable terminates on a connecting block.

H.3.2 Assembly Point: 4–Wire Cross Connects
The 4–wire cross connect runs from the distributing frame to the assembly point frame. It is assumed that one hundred and fifty feet of cable rack and a 100 pair tie cable are required to connect the frames. The cable terminates on a connecting block. A 4-wire cross connect utilizes twice the capacity and equipment as a 2-wire cross connect.

H.3.3 Assembly Point: DS1 Cross Connects
The DS1 cross connect runs from the DSX-1 frame to the DSX-1 assembly point frame. It is assumed that one hundred and fifty feet of cable rack and cable are required to connect the frames. As a result of the physical separation of the assembly point frame from the existing DSX complex, the maximum allowable

length for a DS1 jumper will be exceeded. A bi-directional DS1 intraoffice repeater will be included on every DS1 cross connect to compensate for this distance.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

H.4 ADJACENT COLLOCATION
H.4.1 ADJACENT COLLOCATION - SPACE COST PER SQ FT.
H.4.2 ADJACENT COLLOCATION - ELECTRICAL FACILITY COST PER LINEAR FT
H.4.3 ADJACENT COLLOCATION - 2-WIRE CROSS CONNECTS
H.4.4 ADJACENT COLLOCATION - 4-WIRE CROSS CONNECTS
H.4.5 ADJACENT COLLOCATION - DS1 CROSS CONNECTS
H.4.6 ADJACENT COLLOCATION - DS3 CROSS CONNECTS
H.4.7 ADJACENT COLLOCATION - 2-FIBER CROSS CONNECT
H.4.8 ADJACENT COLLOCATION - 4-FIBER CROSS CONNECT
H.4.9 ADJACENT COLLOCATION - APPLICATION COST
H.4.16 ADJACENT COLLOCATION - 120V, SINGLE PHASE STANDBY POWER COST
H.4.17 ADJACENT COLLOCATION - 240V, SINGLE PHASE STANDBY POWER COST PER AC BREAKER AMP
H.4.18 ADJACENT COLLOCATION - 120V, THREE PHASE STANDBY POWER COST PER AC BREAKER AMP
H.4.19 ADJACENT COLLOCATION - 277V, THREE PHASE STANDBY POWER COST PER AC BREAKER AMP

Element Description

Adjacent Collocation is an additional alternative to an existing Physical Collocation arrangement. Physical Collocation occurs inside the BellSouth central office building. Adjacent Collocation is outside the BellSouth central office building but on BellSouth "adjacent" property. BellSouth will provide adjacent collocation arrangements where space within the Central Office is legitimately exhausted. This is subject to technical feasibility and where the Adjacent Arrangement does not interfere with access to existing or planned structures or facilities on the Central Office property. The Adjacent collocation is also limited to locations where permitted by zoning and other applicable state and local regulations. The Adjacent Arrangement shall be constructed, procured, maintained, and operated by a CLEC and in conformance with BellSouth's guidelines and specifications.

The per square foot land value is based on real-estate broker estimates. The central offices considered in the calculation are those in exhaust status for physical collocation. A probability of adjacent collocation occurrence was applied to each central office location to develop a weighted average cost per square foot. It is assumed the collocator will provide any work associated with the CEV/Hut such as building set-up, foundations, and landscaping. Thus, costs for these activities are not included in the cost figure.

BellSouth will provide AC power facilities to the adjacent site. The electrical facility cost to provide this element is developed on a generic basis for a typical site. The configuration of a typical site is: CEV/Hut is 50 feet from the BellSouth building, the distance within BellSouth building to connect to BellSouth power is 100 feet, and the standard collocator equipment layout is 200 square feet.

The AC power cost provided has two components in the cost element. The first is the material cost for the standby power facilities. The other is the added cost for the delivery of commercial AC power to the collocator's power plant. The commercial power is billed based on usage at a cost per breaker amp. Both cost components are based on the type of power voltage and phase required.

It is assumed the CLEC will place their own DC power plant in their structure. The collocator will be provided the same AC power that is available in the central office facility. If the collocator wishes to convert their power to another phase, they will need to purchase and install the transformer.

Note: A collocator would also need to purchase cable installation and cable support structure from physical collocation in order to provide adjacent collocation cross-connects.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

Specific Study Assumptions:

- 75 feet of cable rack will be required for 2-wire and 4-wire cross connects
- 100 feet of cable rack will be required for other cross connects

H.6.0 PHYSICAL COLLOCATION IN THE REMOTE TERMINAL (RT)
H.6.1 PHYSICAL COLLOCATION IN THE RT - APPLICATION FEE
H.6.2 PHYSICAL COLLOCATION IN THE REMOTE TERMINAL (RT) PER BAY/ RACK
H.6.3 PHYSICAL COLLOCATION IN THE RT - SECURITY ACCESS - KEY
H.6.4 PHYSICAL COLLOCATION IN THE RT - SPACE AVAILABILITY REPORT PER PREMISES REQUESTED
H.6.5 PHYSICAL COLLOCATION IN THE RT- REMOTE SITE CLLI CODE REQUEST, PER CLLI CODE REQUESTED

Element Description

This unbundled network element (UNE) provides for physical collocation in a remote terminal. Remote site locations include cabinets, huts, and controlled environmental vaults (CEV) owned and leased by BellSouth that house BellSouth Network Facilities. Remote Site Physical Collocation can occur where technically feasible. The CLEC shall use the remote collocation space for the purposes of installing, maintaining and operating his equipment used to interconnection with BellSouth services and facilities, including access to unbundled network elements, for the provision of telecommunications services.

The collocator files an application to request remote collocation. The application is a nonrecurring cost. The collocator may also request a written Space Availability Report - per premises requested. The report specifies the amount of remote collocation space that is available at the remote site location and the measures that BellSouth is taking to make additional space available, etc. The report is a nonrecurring cost.

The monthly cost for physical collocation space in the remote terminal is per bay /rack of space. The purchase of space allows placement of collocator-owned facilities and equipment in BellSouth remote sites.

Under Remote Site Collocation, a CLEC may elect to connect to a feeder line as follows: (1) Connection to a BellSouth feeder line (where technically feasible) via the cross connect located near the BellSouth equipment inside the Remote Terminal. In this case, the point of interconnection is the DSX or LGX panel in the Remote site. (2) Connection of the collocator's owned or leased entrance facilities into the remote site connection space from its own point of presence. BellSouth will designate a point of interconnection at the remote site location housing the collocation space, which is physically accessible to both parties, which shall be the point of entrance into the remote site.

Distribution lines will be accessed by the CLEC, who will provide a copper cable from the remote site collocation space to the feeder distribution interface. The cable will be of sufficient length for splicing. BellSouth personnel will splice the cable to a bundle of the distribution cable at the feeder distribution interface. Groups/ bundles are to be provided in 25-pr. Increments. The point of demarcation will be the splice at the feeder distribution interface.

Each party will be responsible for maintenance and operation of all equipment/facilities in its side of the demarcation point. The Collocator will have access to the site by purchasing a key. This is a nonrecurring cost.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

Study Assumptions

- This UNE is ordered only on a manual basis.
- The CLEC will need to order other UNEs to connect to his collocation equipment.

H.7 COLLOCATION CABLE RECORDS
H.7.1 COLLOCATION CABLE RECORDS - PER REQUEST
H.7.2 COLLOCATION CABLE RECORDS - VG/DS0 CABLE, PER CABLE RECORD
H.7.3 COLLOCATION CABLE RECORDS - VG/DS0 CABLE, PER EACH 100 PAIR
H.7.4 COLLOCATION CABLE RECORDS - DS1, PER T1TIE
H.7.5 COLLOCATION CABLE RECORDS - DS3, PER T3TIE
H.7.6 COLLOCATION CABLE RECORDS - FIBER CABLE, PER CABLE RECORD

Element Description

The Collocation Cable Records element consists of nonrecurring costs for establishing the cable records in BellSouth's systems. The records contain the competitive local exchange carrier's (CLEC) cables terminating on BellSouth's frame and are needed for cable facility assignments. A set up cost applies per request (H.7.1) along with the appropriate cable record type. For example, for voice grade/digital signal level zero (VG/DS0) two elements apply; per cable record and per each 100 pairs terminated along with the per request cost. A VG/DS0 cable record is defined as a maximum of 3600 records. The Fiber cable record is defined as a maximum of 99 records. The DS1 and DS3 cable record are defined as each T1TIE and T3TIE respectively.

Comment:

H.8.0 VIRTUAL COLLOCATION IN THE REMOTE TERMINAL RT)
H.8.1 VIRTUAL COLLOCATION IN THE REMOTE TERMINAL (RT) - APPLICATION COST
H.8.2 VIRTUAL COLLOCATION IN THE REMOTE TERMINAL (RT) - PER BAY/RACK OF SPACE
H.8.3 VIRTUAL COLLOCATION IN THE REMOTE TERMINAL (RT) - SPACE AVAILABILITY REPORT PER PREMISES REQUESTED
H.8.4 VIRTUAL COLLOCATION IN THE REMOTE TERMINAL (RT) – PER REQUEST FOR COMMON LANGUAGE LOCATION IDENTIFIER (CLLI)

Element Description

A collocation arrangement provides a CLEC with an efficient means for connection to the BellSouth network. BellSouth has two types of collocation in the Remote Terminal available: Physical and Virtual Collocation.

Element H.8.0 Virtual Collocation in a Remote Terminal provides for the installation of collocator-owned equipment and facilities in BellSouth Remote Terminals for the purpose of connecting to the BellSouth network. Remote site locations include cabinets, huts, and controlled environmental vaults (CEV) owned and leased by BellSouth that house BellSouth Network Facilities. Remote Site Virtual Collocation can occur where technically feasible.

The collocator files an application, element (H.8.1) to request remote virtual collocation. The application is a nonrecurring cost. The collocator may also request a written report, (H.8.3) Space Availability Report per premises requested. The report specifies the amount of remote collocation space available at the remote site location and measures BellSouth is taking to make additional space available, etc. This is a nonrecurring cost. Element H.8.4, Request for a Common Language Location Identifier (CLLI) is also a nonrecurring cost.

The monthly cost for virtual collocation space in the remote terminal is per bay /rack of space. (H.8.2) The purchase of space allows placement of collocator-owned facilities and equipment in BellSouth remote sites.

Study Assumptions

- This UNE is ordered only on a manual basis.
- The CLEC will need to order other UNEs to connect to his collocation equipment.
- The development of cable records for facility assignment purposes is recovered in the connecting UNE nonrecurring cost.

J.0 OTHER

J.4 LINE SHARING SPLITTER IN THE CENTRAL OFFICE & REMOTE TERMINAL
J.4.1 LINE SHARING SPLITTER, PER SYSTEM 96 LINE CAPACITY IN THE CENTRAL OFFICE
J.4.2 LINE SHARING SPLITTER, PER SYSTEM 24 LINE CAPACITY IN THE CENTRAL OFFICE
J.4.3 LINE SHARING SPLITTER - PER LINE ACTIVATION IN THE CENTRAL OFFICE
J.4.4 LINE SHARING SPLITTER - PER SUBSEQUENT ACTIVITY PER LINE REARRANGEMENT
J.4.6 LINE SHARING - PER CLEC/DLEC OWNED SPLITTER IN THE CENRAL OFFICE (PER LSOD)
J.4.7 LINE SHARING - PER CLEC/DLEC OWNED SPLITTER IN THE CENTRAL OFFICE (PER OCCURRENCE OF EACH GROUP OF 24 LINES (48 PAIRS))

Element Description

This unbundled network element (UNE) unbundles the high frequency data portion of the local loop in the end users' serving wire center. The CLECs can use this UNE to provide xDSL-based services for their end user customers. The loop's remaining transmission frequencies continue to provide voice grade service from BellSouth. The Line Sharing Splitter in the CO UNE is provided on a two wire unloaded line side copper loop that does not exceed 18 KF. For each loop, BellSouth provides this UNE only to a single requesting carrier and only for use at the same customer address. BellSouth will not provide this UNE if BellSouth does not currently provide analog voice service to the customer. Also, if the customer terminates his voice service with BellSouth, this UNE will be disconnected for that customer. However, if the CLEC wants to continue to provide xDSL service to the end user, the CLEC may purchase the full stand-alone loop unbundled network element.

In order to unbundle the high frequency portion of the loop; a 2-wire line-side copper loop is terminated at a splitter located in the serving wire center. The splitter routes the high frequency portion of the circuit to the CLECs xDSL equipment. One splitter or passive signal filter must also be installed at the customer's premises as CPE (Customer Premises Equipment). Since the CPE is the responsibility of the customer or CLEC, the cost of the CPE is not included. BellSouth installs only the splitter in the central office.

The Line Sharing Splitter UNE consists of the following elements: (J.4.1) a per splitter system 96 line capacity and (J.4.2) a per splitter system 24 line capacity,

(J.4.3) a per line activation in the central office per occurrence and (J4.4) a per subsequent activity per occurrence. The system splitter consists of a 96-line or 24-line capacity for 96 or 24 individual (line) connections in the central office for line sharing. The CLEC purchases collocation cross connects to connect his xDSL equipment to the splitter frame in the central office. For CO line sharing, the CLEC must have a DSLAM unit collocated in the serving central office of the end user. The line activation in the central office provides for a connection between the collocation cross connect, the splitter and the end user loop. A line activation charge is applicable for every end user loop that connects to a splitter.

When the CLEC places the splitter in his collocation space the following line sharing elements apply. J.4.3, which includes a monthly and nonrecurring cost, is applied per line activation in the central office per occurrence. Also, element J.4.6, nonrecurring cost only, applies per CLEC/DLEC Owned Splitter in the Central Office per line splitter order document (LSOD). Nonrecurring cost (J.4.7) per occurrence of each group of 24 lines (48 pair) associated with the LSOD also applies. In addition, all applicable collocation costs will be incurred

Study Technique

Microsoft Excel spreadsheets are used to develop both recurring and nonrecurring cost analyses.

Specific Study Assumptions

- "N " Unbundled Network Elements apply.
- Loop conditioning is not included. Additional charges apply if conditioning is required.
- The CLEC will need to order collocation in the central office to go with line sharing.
- The end user calls BellSouth for problems related to voice service and calls the CLEC for problems related to data service.

FLORIDA DOCKET NO. 000731-TP
APPENDIX A

BellSouth Capital Cost Calculator

Model Description
Illustrative Example of Capital cost Calculator Calculations (Electronic Format Only)

FLORIDA DOCKET NO. 000731-TP
APPENDIX A

BellSouth Capital Cost Calculator

The Capital Cost Calculator is a computer application designed by BellSouth that has been integrated into the BellSouth Cost Calculator model. It was developed to produce accurate and reliable capital cost component factors (depreciation, cost of money, and income taxes) in an open, understandable, and verifiable manner. BellSouth also developed an Excel spreadsheet version of the integrated Capital Cost Calculator for the purposes of illustrating and demonstrating the methodology that underlies the integrated version. Utilizing the Excel version, all BellSouth capital cost calculations may be reviewed by taking the following steps:

1. Open the Excel version of the BellSouth Capital Cost Calculator.
2. Enable Macros.
3. Using the floating toolbar, select an account. Once done, the Excel spreadsheet will be populated with data for that specific account based on user inputs.
4. All calculations within the Excel spreadsheet may then be followed.

The following provides a step by step description of the capital cost calculations in the BellSouth Capital Cost Calculator. The workbook consists of several individual worksheets (tabs) that are referenced throughout this description. The account selected (Step 3 above) for this example is the Digital Circuit Equipment-Pair Gain account.

The first tab displays the "Capital Cost Inputs". Included in this tab are the user adjustable inputs including account nonspecific financial data such as return on equity, debt rate, debt ratio, discount rate (cost of money), and income tax rate. Additionally, account specific inputs allow the user to input the economic lives, the tax lives, the future net salvages (FNS), and the Gompertz-Makeham curve shapes of each account,

The second tab displays the "MACRS Tax Tables" . These tables provide the yearly tax depreciation rates for each Recovery Class as specified by MACRS tax depreciation rules. For example, Digital Circuit Equipment-Pair Gain falls into Recovery Class 5 and the yearly tax depreciation rates are:

Year 1	.2000
Year 2	.3200
Year 3	.1920
Year 4	.1152
Year 5	.1152
Year 6	.0576
Total	1.0000

The third tab provides the "Survival Data" for Digital Circuit Equipment-Pair Gain based on the Gompertz-Makeham survival curve defined by the user input c, G, and S parameters adjusted to match the economic life of 9.0 years as input by the user. The Gompertz-Makeham survival curves are the standard approach used in the telecom industry and are approved by most state and federal regulatory bodies. These curves represent the survival pattern of telecom plant. While the curve represents the pattern of retirements, the area under the curve represents the average life of the plant.

- Columns A and B provide survival data assuming a beginning of year (BOY) convention. For example, Year 1 begins with 100% of the investment in place. According to the survival curve, 2.89% retires in Year 1, resulting in 97.11% of the investment remaining in service at the end of Year 1.

- Columns C and D provide the same data assuming an end of year (EOY) convention.

- Column E calculates the yearly retirements (BOY convention) by subtracting Column B of the current year from Column B of the previous year. Column F calculates the yearly retirements (EOY convention) by subtracting Column D of the current year from Column D of the previous year.

- Column G determines the book depreciation rates (BOY convention) for each "life group" of the circuit account that should be recovered in each year. For example, in Year 1, Column E shows that 2.89% of the investment is retired, or has a life of only one year. Therefore, Column G shows that the full amount of 2.89% of the total investment should be recovered in Year 1. In Year 2, Column E shows that 4.60% of the investment is retired (i.e., 4.60% of the investment has a 2 year life) and Column G shows that this portion of the investment with a 2 year life must be recovered in 2 years. Therefore, 2.30% of the investment is depreciated each year for two years, resulting in 2.30 • 2 = 4.60%.

- Column H displays the depreciation rates based on EOY convention.

- Columns I and J simply add up the individual surviving depreciation rates to arrive at a composite depreciation rate for each year of the study. For example, in Year 1 the depreciation rate is the sum of all individual life groups' depreciation rates since all life groups are surviving in Year 1. In Year 2, the investment with a one year life (2.89% of the investment) has been retired and the composite depreciation rate for Year 2 is the sum of all life groups' annual depreciation rates for investment with a life of 2 years or longer. Year 3 depreciation rate is based on the sum of depreciation rates for life groups with surviving investment in Year 3, etc.

- BellSouth assumes a midyear investment convention. Midyear depreciation in Column K is determined as the average of Columns I (BOY) and J (EOY).

The fourth tab develops the "Capital Calculations" (BOY and EOY net investments) against which the cost of money is calculated.

- Column A displays the BOY capital. This value starts as 1 and then is equal to the amount outstanding at the end of year (Column E).

- Column B brings over the midyear depreciation rate per year calculated in Column K of Tab 3 "Survival Data". The depreciation rate is then multiplied by the total capital investment that needs to be recovered. This total capital investment is adjusted to include the need to recognize the value of the future net salvage (FNS). The formula is as follows:

  Midyear Depreciation times (1 less the future net salvage percent). The FNS is input by the user in Tab 1 "Capital Cost Inputs".

- Column C brings over the yearly tax depreciation rate for circuit equipment (Recovery Class 5) from Tab 2 " MACRS Tax Tables".

- Column D, Deferred Tax, is calculated as: Tax Depreciation (Column C) less Book Depreciation (Column B) times Income Tax Rate.

- Column E calculates the yearly EOY capital balance. This balance recognizes the deferred tax balance that is available to the company from "normalizing" their deferred taxes. However, this balance is assumed to have a 0% rate of return (therefore we can remove it from the capital amount the company has invested). This EOY capital is calculated as: BOY Capital (Column A) less Book Depreciation (Column B) less Deferred Tax (Column D).

The fifth tab, "Capital Costs", completes the development of the annual capital cost factors for book depreciation, cost of money, and income taxes.

- Column A, Average Capital, is used as the basis against which cost of money calculations are made. From Tab 4, the Beginning of Period Capital (Column A) and End of Period Capital (Column E) are averaged to develop the Average Capital per year.

- Column B, Book Depreciation, is simply brought forward from the Book Depreciation (Column B) in Tab 4.

- Column C, Return on Capital, is calculated as the Average Capital (Column A) times the Discount Rate (Cost of Money) of 11.25% from Tab 1.

- Column D, Return on Equity, is necessary to determine income taxes. Return on Equity is calculated as Average Capital (Column A) times the portion of capital associated with equity (1 less the debt ratio from Tab 1 times return on equity (from Tab 1).

- Column E, Grossed-Up Income Tax, is calculated as Return on Equity (Column D) times the Composite Income Tax Rate from Tab 1 divided by 1 minus the Composite Income Tax Rate.

Please keep in mind that under midyear convention, the first year values need to recognize that the capital is only on the books for ½ of a year.

Tab 5 also displays the capital cost factors for each year that plant survives based on the adjusted survival curves for the plant account. In order to develop a set of levelized annual cost factors, two steps are necessary. First, the net present value (NPV) of the annual streams of Columns B through E is calculated using a discount rate equal to the cost of money. Second, the NPV is spread back out over the economic life of the plant account using a midyear convention approach to arrive at a set of levelized annual cost factors for book depreciation, return on capital, and income taxes.

The sixth tab "Annual Charge Factors" displays the levelized capital cost factors and their component pieces cost of money, depreciation, and income taxes) that are then applied to investments as calculated by the BellSouth Cost Calculator for all accounts to determine annual capital costs.

The integrated Capital Cost Calculator also allows the user to view both the methodology and the development of the capital costs associated with a particular account. From the integrated Capital Cost Calculator application select "View", "Methodology", "Details" and then the specific account that you want to review. Then simply follow the prompts to review the step-by-step development of capital costs associated with the specific account. The integrated Capital Cost Calculator is also equipped with a user-friendly help screen feature.

The EXCEL version of the Capital Cost Calculator is in electronic format and can be found on the CD, furnished as Appendix C, in the Documentation folder under Appendix A.

FLORIDA DOCKET NO. 000731-TP
APPENDIX B

The following worksheets showing the calculations associated with loadings and factors development discussed in Section 5 are included in this Appendix. These files are being furnished in electronic format only and can be found on the CD, furnished as Appendix C, in the Documentation Folder under Appendix B.

Loadings and Factors	**File Name**
1. TPI's/Levelized Inflation Factors	InfltnLv2.xls
2. Inplant Factors – COE	IPIntCOE.xls
3. Inplant Factors – OSP	IPIntOSP.xls
4. Plug-in Factors – Hard-wired Factors	HWPI98CL.xls
5. Supporting Equipment & Power Loadings	ComPwr.xls
6. Plant Specific, Land and Building Loadings Pole and Conduit Loadings	PLSP99Ey.xls
7. Ad Valorem and Other Taxes	98AdVals.xls
8. Gross receipts Tax	99stuse3.xls
9. Income Taxes, State and Federal	Taxes9~2.xls
10. Disconnect Factors	Discon99.xls
11. Labor Rates	99Lab_.xls
12. Right To Use Development Factor	rtu560c2.xls

Shared & Common Related Files:	**File Name**
1. Projected Expenses for 1999	EXPPRJ00.XLS
2. Summary of the Shared & Common Factors	S&CSUM00.XLS
3. Average Projected investment: 2000 - 2002	INVPRJ00.XLS
4. Projected Expenses for 2000-2002 Narrative	EXPPRJ00.DOC
5. Expense Development Factors	EXPDVF00.XLS
6. Investment Development Factors	INVDVF00.XLS
7. Service Order Proportion Factors	SVCORD00.XLS
8. Wholesale/Retail Factors for Account 6611	6611SC00.XLS
9. Wholesale/Retail Factors for Account 6612	6612SC00.XLS
10. Wholesale/Retail Factors for Account 6613	6613SC00.XLS
11. Wholesale/Retail Factors for Account 6623	6623SC00.XLS

FLORIDA DOCKET NO. 000731-TP
APPENDIX C

This appendix contains the following:

1. BellSouth Cost Calculator User Guide
2. Compact Disk containing electronic copies of filing, models, spreadsheets and instructions.

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002
Filing Forecast

Comment:

	Description		Workpaper No.
I.	Overview of Projection Procedure		2-3
II.	Components of Forecast		
	A. MR 1998 Historical Data	Exhibit A	4-5
	B. 1998 Normalize Issues		6
	1. Hurricane Georges	Exhibit B	7
	2. Operation Support System Upgrades	Exhibit C	8
	3. Software Capitalization	Exhibit D	9
	4. IT Mobilization	Exhibit E	10
	5. SFAS 112	Exhibit F	11
	C. 1998 Normalized MR Regulated	Exhibit H	12
	D. Projection Factors		
	1. Inflation	Exhibit I	13
	2. Load	Exhibit J	14
	3. Productivity	Exhibit K	15
	4. Growth Rate	Exhibit L	16-17
	E. Annual 1999 MR Regulated	Exhibit M	18
	F. 1999 Overlay Adjustment		19
	2% Shift of G&A to Sales	Exhibit L	20
	G. Description of Forecast Model & Forecast Summary		21
III.	Forecast Model		

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002
"OVERVIEW OF PROJECTION PROCEDURE"

Required information: **A projection of BST MR regulated operating expenses by state and total BST for the years 1999 through 2002. The data is needed by USOA summary account for all accounts except depreciation expense and universal service fund expense. The exceptions will be separately calculated and therefore a projection of them is not required.**

Basic projection procedure: **The projection procedure begins with data from a recent historical period. This data is normalized for occurrences, such as hurricanes, special accounting transactions, certain levels of employee separation costs, etc. The normalized data by account is then projected forward to future years by the application of growth factors that are appropriate for the nature of the expense recorded in the account. The growth factors account for inflation, a normal level of operating productivity improvements, and expected growth in volume of business. Finally, any known events which will impact the level of expenses over and above ordinary inflation, productivity, and growth are estimated and an overlay adjustment is applied to the projected expenses.**

Inputs required for projection:

1) **MR 1998 historical data by summary account –**
Regulatory accounting provided data from its COREDATA system

2) **Adjustments to normalize 1998 data –**
The Financial Analysis - Current Reporting Group, Accounting Policy, and other subject-matter-experts identified and priced out transactions journalized in 1998 which are not representative of ongoing expense levels. Shown below is a list of these transactions:

- **Hurricane Georges.**
- **Operation Support System Upgrades.**
- **Software Capitalization.**
- **IT Mobilization.**
- **SFAS 112.**

3) **Inflation factor –**
Determined the appropriate inflation factor for the various accounts and obtained a projection of these factors for 1999 through 2002 from BellSouth Telephone Plant Indexes (TPI : October 1998 Forecast).

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002
"OVERVIEW OF PROJECTION PROCEDURE"

4) **Operating productivity factor --**
This factor represents a level of operating productivity improvement that we would expect to obtain each year.

5) **Load factors–**
Determined appropriate growth factors due to expected change in volume of business or load. In addition, determined which expense accounts are sensitive to various measures of volume of business change.

6) **Price-outs of items for 1999 Overlay Adjustments –**
Determined any known changes in expense levels that would not be reflected in the historical data or in the growth factors applied. Shown below is the item identified, effective with the projection for calendar year 1999:

- **General and Administration (G&A) initiative. This item reflects the Company goal to shift certain costs which are currently recorded in the G&A accounts (67xx) to sales and marketing accounts (66xx.)**

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"MR 1998 Historical Data"
Exhibit A

Actual operating expense data for the 1998 calendar year was obtained from BellSouth's COREDATA system. The expense data has been determined on an FCC accounting basis for each Uniform System of Accounts (USOA) summary account 6XXX, with the exception of Depreciation and Amortization Expenses classified to Account 6560 and Access Expenses, including Universal Service Fund contributions, classified to Account 6540.

"USOA Summary Accounts 6XXX"

USOA Account	Description of Operating Expense
6110	Network Support
6120	General Support
6210	Central Office Switching
6220	Central Office Operator Systems
6230	Central Office Transmission
6310	Information Origination/Termination
6410	Cable and Wire Facilities
6510	Other Property, Plant and Equipment
6530	Network Operations
6610	Customer Operations – Marketing
6620	Customer Operations – Services
6710	Executive and Planning
6720	General and Administrative

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"MR 1998 Historical Data"
Exhibit A

MR Regulated Operating Expenses are calculated as MR Booked expenses less amounts related to the provisioning of non-regulated services.

"1998 Operating Expenses "
Account 6XXX *
($000)

Entity	MR Book	Non-Regulated	MR Regulated
BellSouth	6,786,868	734,789	6,052,079

* All references to Account 6XXX exclude Account 6560 and Account 6540.

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002
"1998 Normalize Issues"

Transactions journalized in 1998 which are not representative of ongoing expenses were identified and removed from the historical base period amounts. The effect of these transactions on operating expense accounts 6XXX are labeled as "1998 Normalize Issues". A dollar threshold of $10M was used as a guideline for identifying adjustments subject to normalization. Also, individual state operations were examined using a threshold of $5M. The 1998 Normalize Issues are described in Exhibits B through F.

"Summary of 1998 Normalize Issues"
($000)

Entity	Exhibit	Issue Description	Adjustment to 1998 data	
BellSouth	B	Hurricane Georges	Remove	-22,416
BellSouth	C	Operation Support System Upgrades	Remove	-39,709
BellSouth	D	Software Capitalization	Remove	-369,779
BellSouth	E	IT Mobilization	Remove	-30,498
BellSouth	F	SFAS 112	Add	22,986
BellSouth		Total of Issues	Remove	-439,416

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Hurricane Georges"
Exhibit B

In September 1998, Hurricane Georges struck BellSouth. The path of destruction affected Florida, Alabama, Mississippi, and Louisiana. BellSouth spent $22,416,000 to repair damages inflicted by the storm.

"Hurricane Georges"
Account 6XXX
($000)

Entity	Total Charges
BellSouth	22,416

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Operation Support System Upgrades"
Exhibit C

Operation Support System Upgrades refer to BellSouth's plan to provide the backbone capabilities required to meet the Telecommunication Act of 1996, FCC and other mandates relative to local interconnection with service providers such as CLECs. Operation Support System Upgrades as used in this projection consists of Service Provider Portability and Service Provider Upgrade.

Service Provider Portability (SPP) refers to the ability of a customer to change service providers and retain their local telephone number. Service Provider Upgrade (SPUP) refers to upgrades necessary to support SPP. These projects provide funding for the planning and development required to deploy SPP in the live BellSouth network. This includes infrastructure and Operating Support Systems upgrades, development of electronic interfaces and other work necessary to support various orders including FCC Docket 95-1169.

"Operation Support System Upgrades"
Account 6XXX
($000)

Entity	Total Charges
BellSouth	39,709

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Software Capitalization "
Exhibit D

Effective 1/1/99, BellSouth will adopt Statement of Position (SOP) 98-1 issued by the American Institute of Certified Public Accountants. SOP 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use" unifies the accounting presentation of expenditures for internally developed software. For BellSouth adopting SOP 98-1 requires capitalization of software development costs which were expensed during 1998. This adjustment would have decreased 1998 expense by $369,779,000. It is embedded in projections for 1999 through 2002.

" Capitalization of Software"
($000)

Entity/Account	6210	6220	6230	6724	Total
BellSouth	-172,480	-5,816	-989	-190,494	-369,779

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"IT Mobilization"
Exhibit E

In 1998, BellSouth recognized a one-time charge associated with IT Mobilization expenses. IT Mobilization relates to a BellSouth program of outsourcing certain Information Technology functions.

"IT Mobilization"
Account 6728
$(000)

Entity	Total Charges
BellSouth	30,498

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"SFAS 112 Liability"
Exhibit F

In October 1998, it became necessary to adjust the SFAS 112 liability to reflect updated projections of other post retirement benefits (OPEBS.) This review prompted an adjustment to the liability and a corresponding credit to expenses.

"SFAS 112 Liability"
Account 6728
$(000)

Entity	Total Charges
BellSouth	(22,986)

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002
"1998 Normalized MR Regulated Expenses"
Exhibit H

Normalized MR Regulated Expenses are defined as MR Regulated dollars less amounts related to normalize issues described on Exhibits B, C, D, E and F. The 1998 Normalized MR Regulated Expenses for the BellSouth region total $5,612,662.

"1998 Normalized MR Regulated Expenses"
($000)

Entity	1998 MR Regulated	1998 Normalize Issues	1998 Normalized MR Regulated
BellSouth	6,052,079	-439,416	5,612,662

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Inflation Factor"
Exhibit I

The projection of the "Union Wage" inflation factor for years 1999 through 2002 is provided on Attachment C, page 7, of the October, 1998 Forecast of BellSouth Telecommunications' Telephone Plant Indexes (TPI), RL: 97-11-002BT. Recognizing that the telecommunications business is highly labor intensive, the forecast of the percentage change in Union Wages is deemed as the appropriate forecast to utilize for all USOA Accounts.

"Inflation Factor"
Percentage Change in Union Wages

Account	Year 1999	Year 2000	Year 2001	Year 2002
All 6XXX	.032	.034	.035	.035

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Load Factors"
Exhibit J

The load factors utilized in this projection are forecasts of the percentage change in BellSouth's Average Access Lines In-Service (AALIS). The AALIS is used as the driver because work is assumed to be driven by the total customers served by the regulated entity.

"Load Factors"

Account	Driver	Year 1999	Year 2000	Year 2001	Year 2002
6XXX	AALIS	.037	.027	.022	.032

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002
"Operating Productivity Factor"
Exhibit K

This factor represents a level of operating productivity improvement which BellSouth expects to achieve for each year of the four years included in the projection. Total Factor Productivity (TFP) has been deemed as an appropriate inflation factor for load driven accounts. The TFP of 3.1% is the latest five-year moving average growth rate, based on years 1990-1995, for Local Exchange Carriers subject to price cap regulation. The TFP of 3.1% was presented by Christensen Associates, as referenced in USTA Comments to the FCC, CC Docket No. 96-262, January 29, 1998, Table 2.

"Operating Productivity Factor"

Account	Account Description	Load Driven	Productivity
6210	CO Switching	Yes	3.1%
6220	CO Operator Services	Yes	3.1%
6230	CO Transmission	Yes	3.1%
6310	Inf/Orig/Term	Yes	3.1%
6410	Cable & Wire	Yes	3.1%
6530	Network Operations	Yes	3.1%
6610	Customer Oper – Mktg	Yes	3.1%
6620	Customer Oper – Svcs	Yes	3.1%
All Other 6xxx	Various	No	0.0%

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002
"Growth Rate"
Exhibit L

The Growth Rate Factor is calculated using the "Inflation Factor", the "Load Factor" and "Productivity". A simple mathematical formula for calculating Growth Rate is: Growth Rate = Inflation + Load - Productivity.

" 1999 Growth Rate "

Account	Inflation (A)	Load (B)	Productivity (C)	Growth Rate (A+ B - C) (D)
61XX	.032	.000	.000	.032
62XX, 6310	.032	.037	.031	.038
6410	.032	.037	.031	.038
6510	.032	.000	.000	.032
6530	.032	.037	.031	.038
6610	.032	.037	.031	.038
6620	.032	.037	.031	.038
6727	.046	.000	.000	.046
67XX	.032	.000	.000	.032

" 2000 Growth Rate "

Account	Inflation (A)	Load (B)	Productivity (C)	Growth Rate (A + B - C) (D)
61XX	.034	.000	.000	.034
62XX, 6310	.034	.027	.031	.030
6410	.034	.027	.031	.030
6510	.034	.000	.000	.034
6530	.034	.027	.031	.030
6610	.034	.027	.031	.030
6620	.034	.027	.031	.030
6727	.050	.000	.000	.050
67XX	.034	.000	.000	.034

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Growth Rate"
Exhibit L

" 2001 Growth Rate "

Account	Inflation (A)	Load (B)	Productivity (C)	Growth Rate (A + B - C) (D)
61XX	.035	.000	.000	.035
62XX, 6310	.035	.022	.031	.026
6410	.035	.022	.031	.026
6510	.035	.000	.000	.035
6530	.035	.022	.031	.026
6610	.035	.022	.031	.026
6620	.035	.022	.031	.026
6727	.045	.000	.000	.045
67XX	.035	.000	.000	.035

" 2002 Growth Rate "

Account	Inflation (A)	Load (B)	Productivity (C)	Growth Rate (A + B - C) (D)
61XX	.035	.000	.000	.035
62XX, 6310	.035	.0032	.031	.036
6410	.035	.032	.031	.036
6510	.035	.000	.000	.035
6530	.035	.032	.031	.036
6610	.035	.032	.031	.036
6620	.035	.032	.031	.036
6727	.045	.000	.000	.045
67XX	.035	.000	.000	.035

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Annual 1999 MR Regulated "
Before Overlay Adjustments
Exhibit M

Annual 1999 MR Regulated Expenses, Before Overlay Adjustments, is calculated by applying a factor of "one plus the Growth Rate" in Exhibit J to the Annual 1998 Normalized MR Regulated amounts displayed on Exhibit F. Annual 1999 MR Regulated Expenses, Before Overlay Adjustments, for the BellSouth *region* total $ 5,818,397,360.

"Annual 1999 MR Regulated "
Before Overlay Adjustment
($000)

Entity	
BellSouth	5,818,397

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Overlay Adjustment"

Known changes in expense levels which are not reflected in the historical 1998 data nor the applicable growth rate for a summary account are entered as "overlay adjustments." This type adjustment is required to normalize the period 1999 through 2002.

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"G & A Reduction"
Exhibit O

BellSouth periodically adopts initiatives to ensure that resources are deployed in such a manner to maximize the organization's effectiveness. One such initiative involves an ongoing examination of functions which are performed and charged to G & A, general and administrative expense. Those functions charged to G & A, but closely relate to selling functions will be reclassified. This effort is expected to reduce general and administrative 2% annually.

BELLSOUTH
OPERATING EXPENSE PROJECTION
CALENDAR YEAR 1999-2002

"Forecast Model & Forecast Summary"

The Forecast Model used to calculate the projection of operating expenses for calendar years 1999-2002 is provided on the following pages. This model is structured to encompass the forecast components described in this document. The resulting calendar year projection is displayed in the Forecast Model.

BELLSOUTH

Cost Calculator

User Guide
Version 2.4

Table of Contents

Application Requirements 3
Installing BellSouth Cost Calculator 4
Starting BellSouth Cost Calculator 12
Opening Screen 13
What's In A Study Directory 16
Opening An Existing Study Scenario 18
Scenario Edit Screen 20
Elements Screen 26
Factor Application Screen 28
Factors Screen 30
Labor Rates Screen 33
Investments, Additives, and Labor Screen 35
Loading BellSouth Loop Model Investments 38
Recalculating Disconnect Factors 39
Running A Scenario 40
Viewing Reports 42
Saving A Scenario 43
Exiting The BellSouth Cost Calculator 45
Uninstalling BellSouth Cost Calculator 46

Application Requirements

Operating System:

The BellSouth Cost Calculator and supporting applications are designed to run on the following operating system platforms:

Windows 95/98
Windows NT 4.0

Hardware:

Your computer should be adequately configured to run Windows 95/98/NT 4.0. Performance will vary depending on the processor and random access memory (RAM) installed in your computer. Below are the minimum hardware requirements:

CPU:	Pentium 166 MHz (Pentium II or III recommended)
RAM:	32 MB (64 MB recommended)
Disk:	Applications (approximately 40 MB if all components installed) Scenarios (variable)
Printer:	If you would like to print reports, your computer must be connected to a printer.

Software:

Microsoft Excel 95 or higher

Installing BellSouth Cost Calculator

1. Verify that you have the required amount of disk space available as detailed in the ***Application Requirements*** topic.

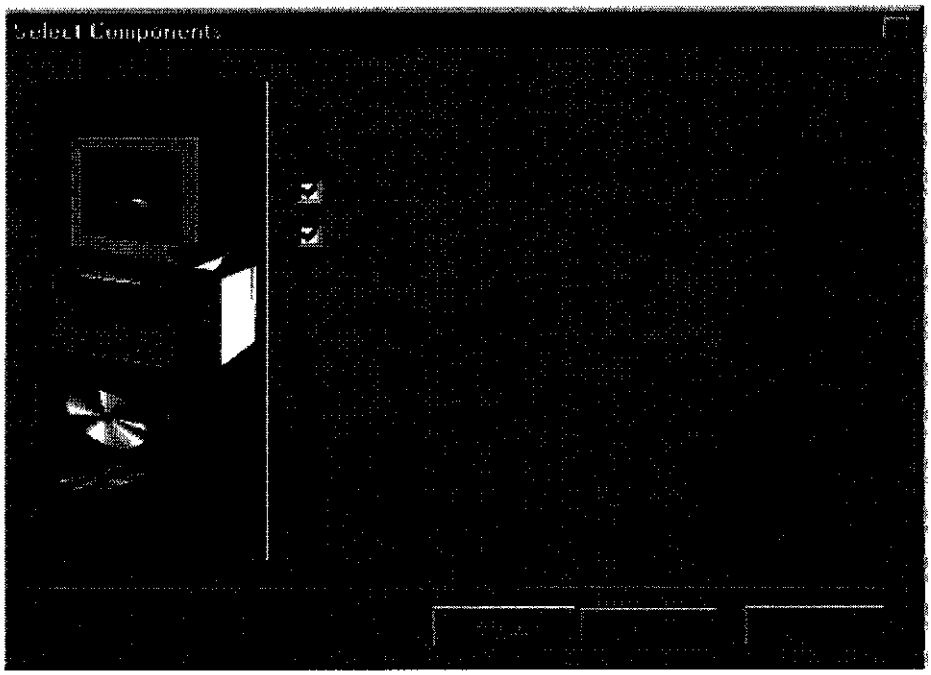
2. Insert the BellSouth Cost Calculator CD-ROM into the CD-ROM drive on your PC. To start the installation, open Windows Explorer and locate the **setup.exe** file on the CD-ROM drive. Double-click **setup.exe**.

3. The following screen will be displayed:

Click **Next** to continue the installation or **Cancel** to abort the installation.

Installing BellSouth Cost Calculator

4. You will be prompted for the components to install:



There will be one or more components available for selection:

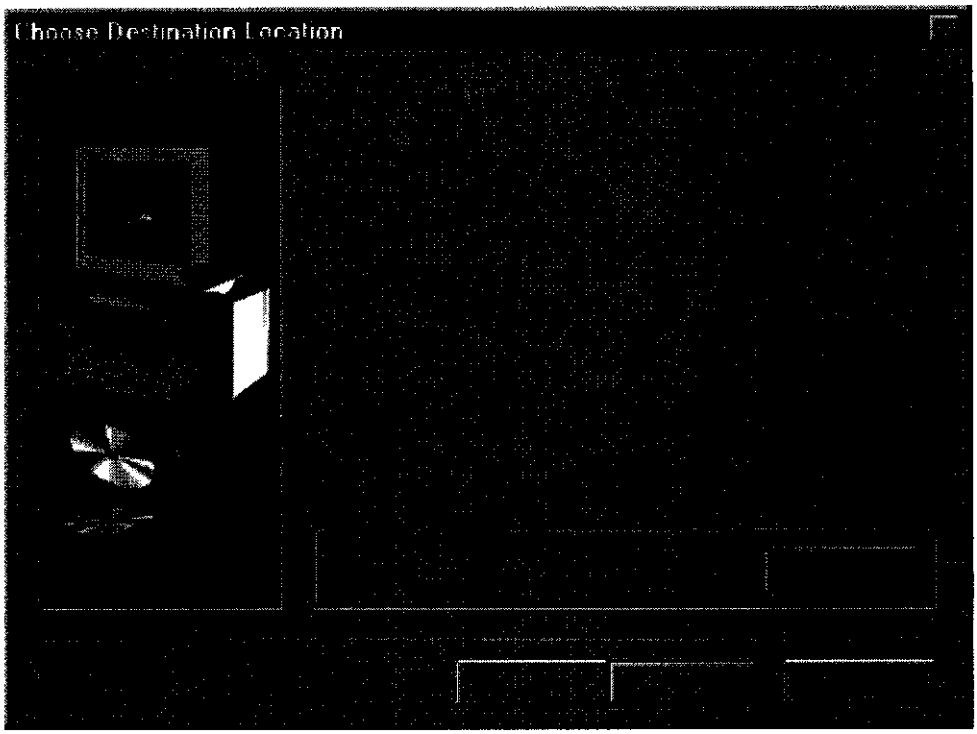
BellSouth Cost Calculator 2.4
If setup determines that Version 2.4 has not been on your computer already, this component will be checked and a message will indicate that you should install it. If setup determines that Version 2.4 is already installed on your computer, this component will be unchecked and the message will indicate that you do not need to reinstall it. In either case, you may override this selection.

Data Files
The CD may also contain BellSouth Cost Calculator scenarios that have been included for filing purposes. By default, this component is checked. You may override this selection and only install the BellSouth Cost Calculator. Or you may choose to install the data files only if the required version of the BellSouth Cost Calculator is already installed on your computer.

Once you have made your selections, click **Next** to continue or **Cancel** to abort the installation.

Installing BellSouth Cost Calculator

5. If you chose to install the BellSouth Cost Calculator, the following screen will be displayed:



By default, the BellSouth Cost Calculator and its supporting applications will be installed in the following directory:

C:\Program Files\BellSouth Cost Calculator 2.4

If you do not wish to accept this default, you may specify a different destination by clicking **Browse**.

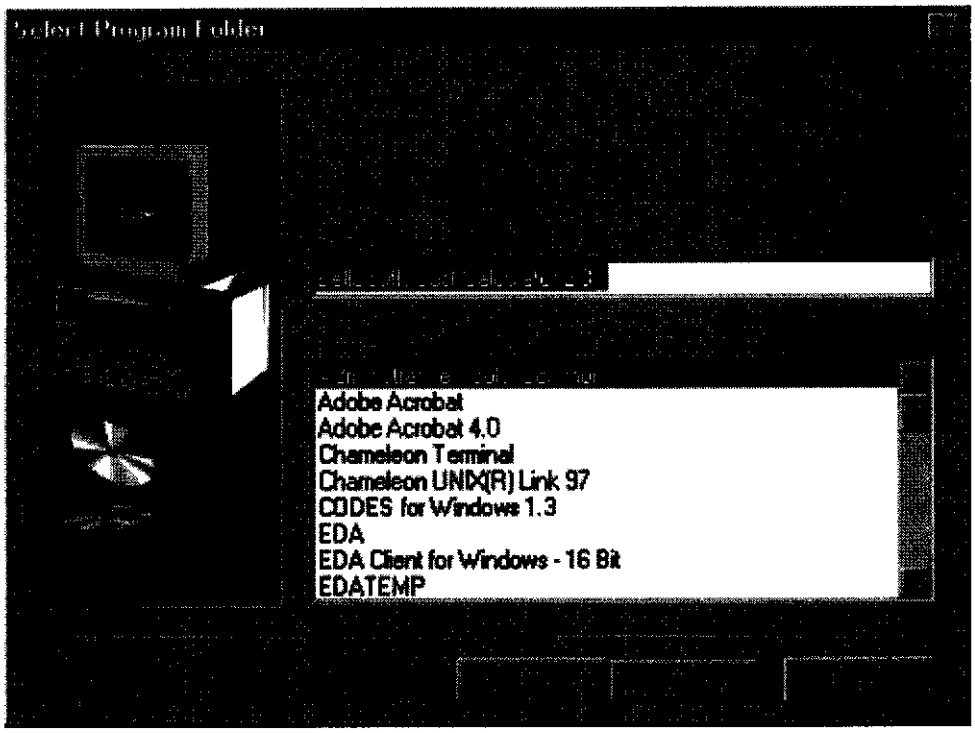
Once your are satisfied with the destination directory, click **Next** to continue.

To go back to the previous screen, click **Back**.

To abort the installation, click **Cancel**.

Installing BellSouth Cost Calculator

6. If you chose to install the BellSouth Cost Calculator, the installation will create a program folder on the Start menu. You will be prompted for the name of this folder:



By default, the installation will create icons in a folder named **BellSouth Cost Calculator 2.4**. You may change this folder by typing in a new one or selecting one from the list of existing folders.

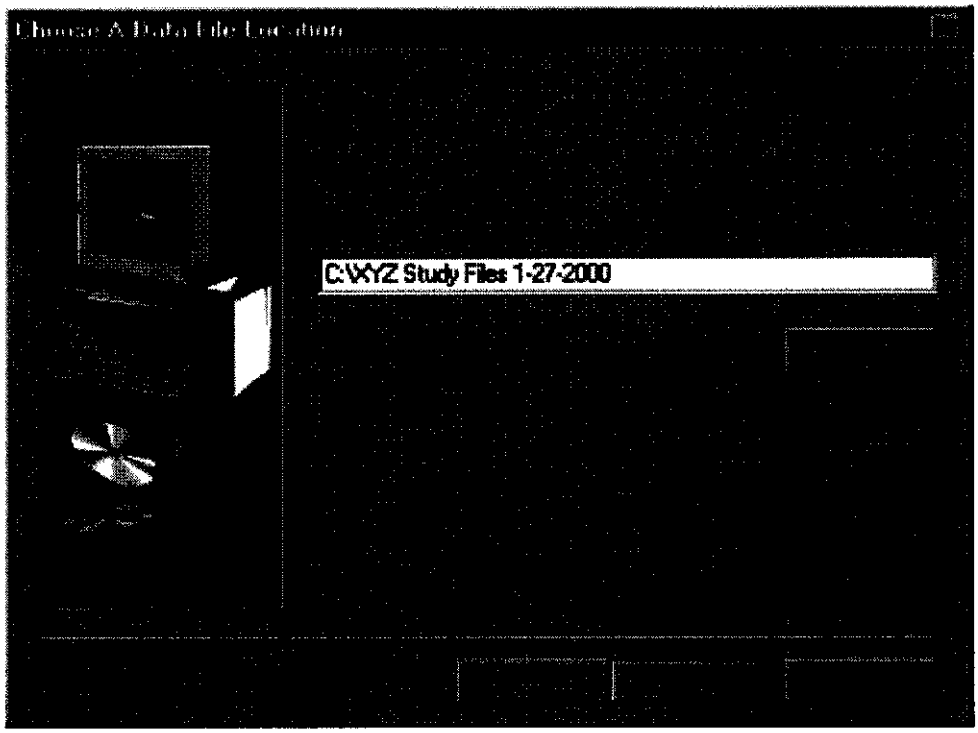
To continue with the installation, click **Next**.

To go back to the previous screen, click **Back**.

To abort the installation, click **Cancel**.

Installing BellSouth Cost Calculator

7. If you chose to install the data files on this CD, you will be required to specify a folder on your computer in which to copy the data files:



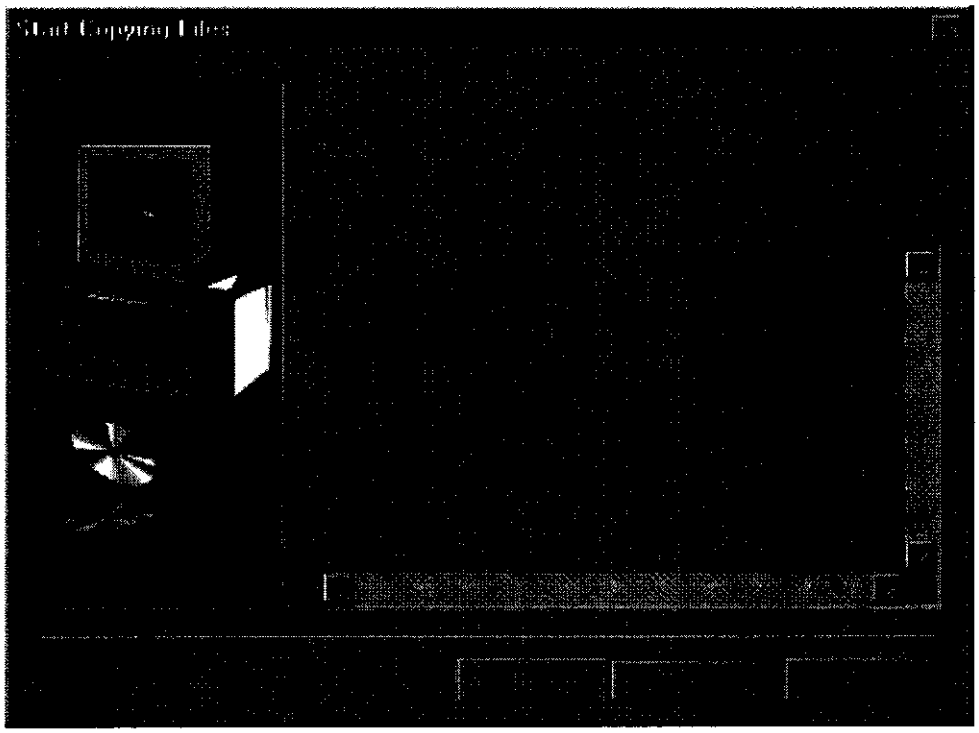
The BellSouth Installer will recommend a folder name for you, but you may change it to suit your needs by clicking **Browse** and selecting a new folder or just typing in a new one.

Once you are satisfied with the data destination folder, click **Next** to continue.

If the Installer determines that there is enough space to install the files on the destination drive, the installation will continue. If there is not enough free space, the Installer will not let you continue until you free enough space on the target drive or specify a different drive.

Installing BellSouth Cost Calculator

8. Once the installer determines that there is enough free disk space to install the selected components, you will be given an opportunity to review your selections. The information that you provided on the previous screens will be listed:



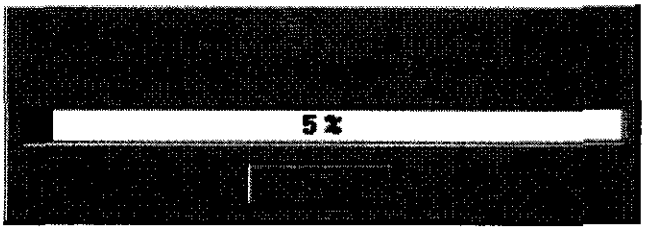
If you want to change any of these selections, click **Back** until you get to the screen containing the settings you want to change. Make the desired changes and click **Next** until you get back to this screen.

To continue with the installation, click **Next**.

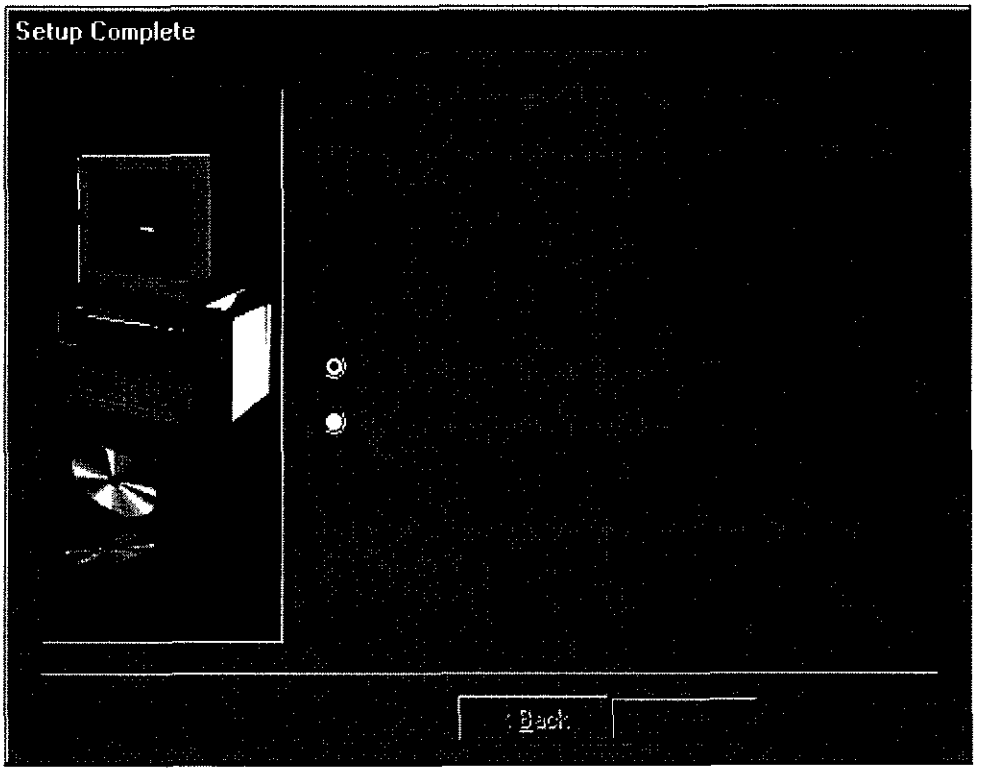
To abort the installation, click **Cancel**.

Installing BellSouth Cost Calculator

9. Setup will copy the files for the selected components to your computer. A status box will indicate the progress of this operation:



10. During the copy operation, the Installer may have copied some shared files that may have been in use by your computer during the installation. If so, the following screen will be displayed:

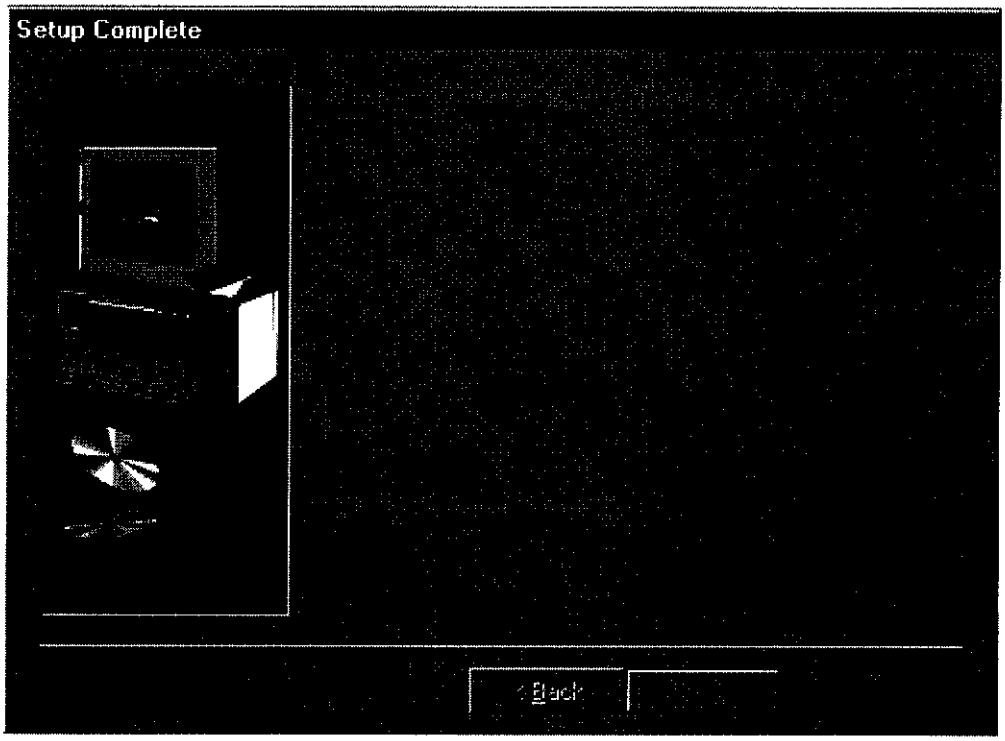


You may choose to restart Windows now or later.

Click **Finish** to complete the installation. If you chose **Yes**, your computer will be rebooted. Once the reboot is complete, you are ready to run the installed applications.

Installing BellSouth Cost Calculator

11. If none of the shared files were in use during the file copy operation, the following screen will be displayed:



Click **Finish** to complete the installation. You may now run the installed applications.

Starting BellSouth Cost Calculator

To start the BellSouth Cost Calculator:

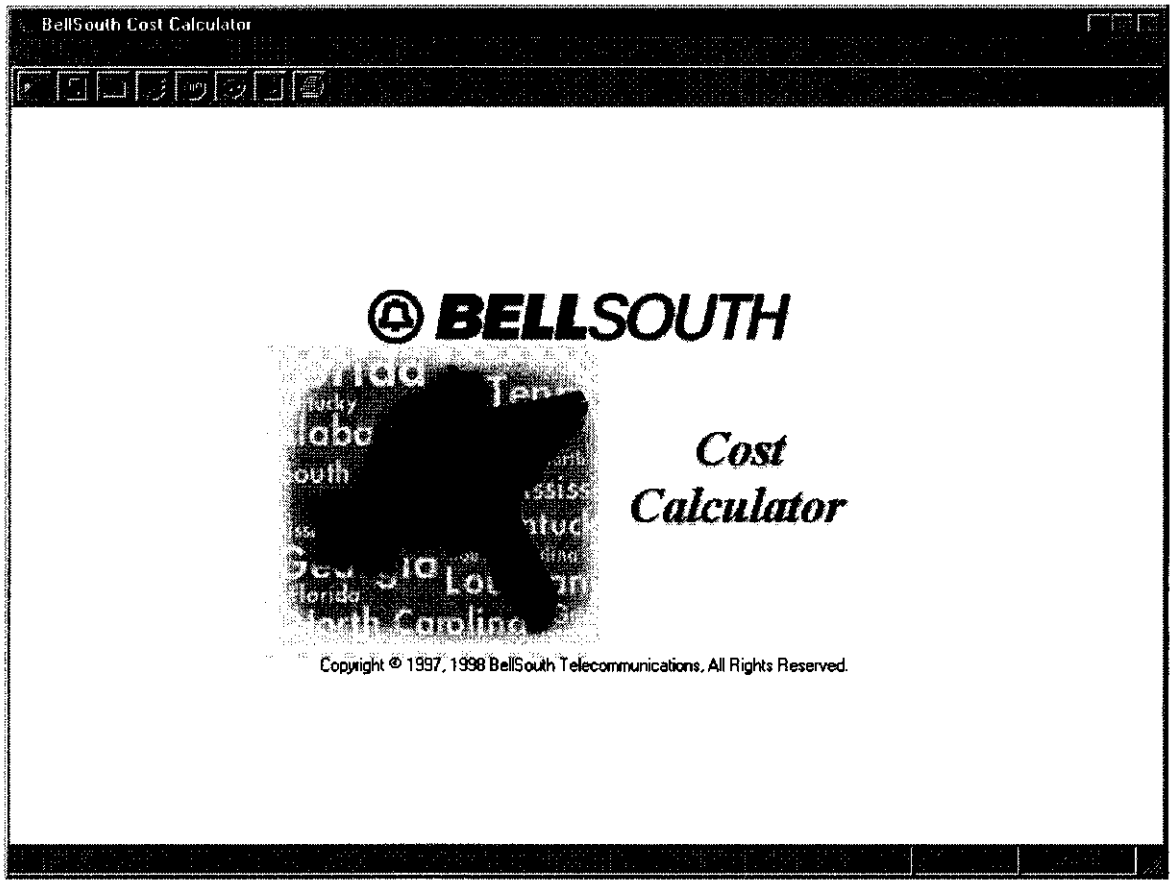
1. Click the **Start** button to display the start menu. Select **Programs** from the start menu.

2. Select **Programs** from the start menu.

3. Locate and select the program folder that was created during installation. By default this folder is named **BellSouth Cost Calculator 2.4**. If you changed this default during installation, locate and select the folder you specified.

Opening Screen

When you start the BellSouth Cost Calculator, you will see the following screen:



This screen allows you to open, modify, and save cost study scenarios. The screen is divided into four sections:

Menus
Toolbar
Element Window
Status Bar

These sections are covered in more detail below.

Opening Screen

Menus

Several of the screens in the BellSouth Cost Calculator contain menus. The menu on each screen will vary depending on the function that you are performing. On the opening screen, the menu has a File and Help option.

File

Open Study/Scenario - Select this option to open a scenario in the current study or a different study.

Exit BellSouth Cost Calculator - Select this option to exit the Cost Calculator.

Help

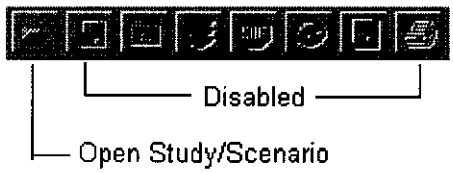
Contents - Select this option to display the help table of contents.

Search - Select this option to search the help topics index.

About - Select this option to display version information.

Toolbar

Depending on the screen, the toolbar contains buttons that perform various functions. Below is the toolbar as you will see it when you first open the Cost Calculator:



Opening Screen

Element Window

The Element Window is much like a page in a word processing program such as Microsoft Word. When you first open the Cost Calculator, this space is filled by the Cost Calculator logo. When you create/open a scenario, the space will be used to display the elements in the scenario. Refer to the topic entitled ***Scenario Edit Screen*** for more details.

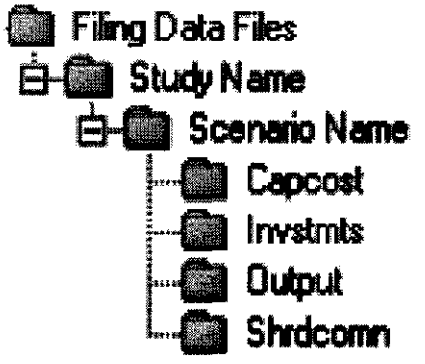
Status Bar

The status bar at the bottom of the screen is used to convey status information. As you create scenarios, the status bar will tell you what is happening. The time is also displayed in the status bar. Below is an example of the status bar:

What's In A Study Directory

A study directory is nothing more than a directory that contains one or more scenarios related to a cost study. The study directory is named to uniquely identify the study.

A scenario is a directory structure (created underneath a study directory) that contains the unique inputs and outputs related to a cost study:



Capcost – Contains Capital Cost Calculator inputs and outputs unique to this scenario.

Invstmts – Contains Excel investment worksheets unique to this scenario.

Output – Contains any Excel outputs that have been created for this scenario.

Shrdcomn – Contains an Excel worksheet for recalculating Labor Rates based on Shared and Common Cost Application changes.

What's In A Study Directory

Also stored in the scenario directory is a scenario database that contains the following:

- Study Type
- State
- Study Period
- Study Mid-Point
- Study Narrative
- Material Vintage
- Gross Receipts Tax parameters
- Disconnect Factor Development parameters
- Element List
- Factor Application Matrix
- Factors
- Labor Rates
- Investments, additives, and labor
- Results of calculations

All of these inputs and outputs uniquely define a scenario. The number of scenarios that can be created under a study directory is only limited by the amount of available disk space on the drive where the study directory resides.

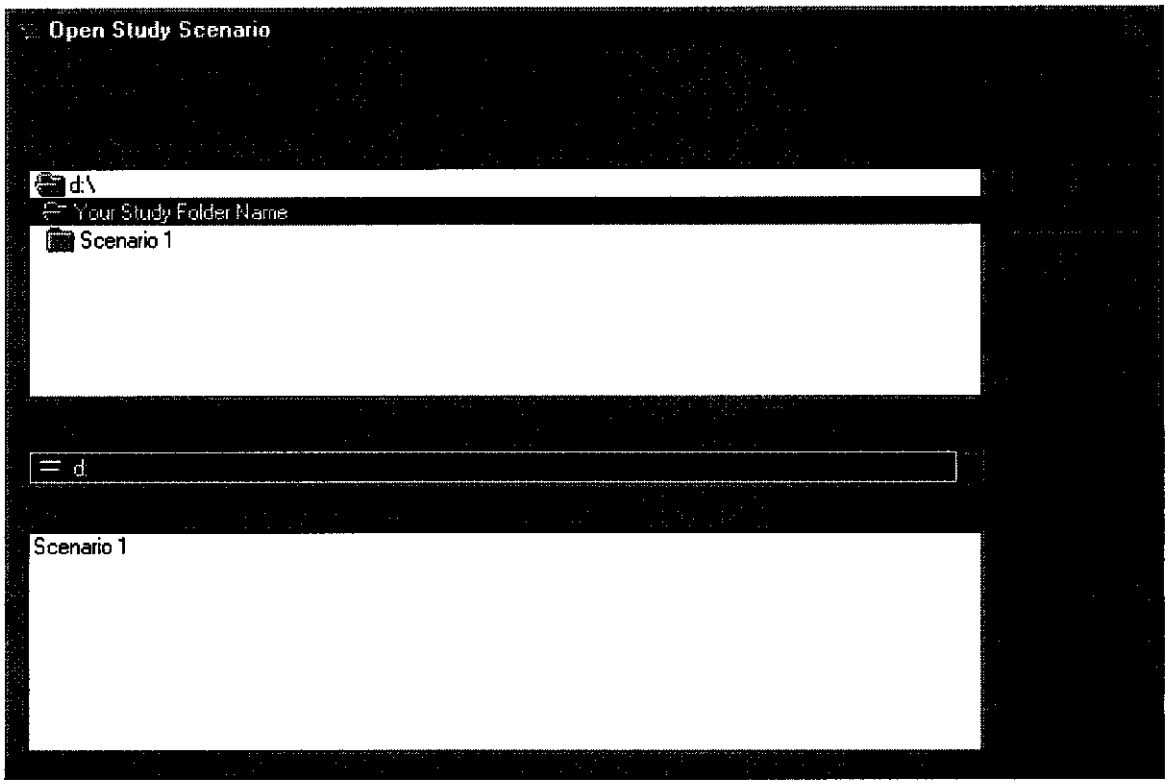
The Study TEMP Directory

When a new scenario is created or an existing scenario is opened, a temporary directory is created under the study directory. A copy of the open scenario is maintained in this temporary directory and all updates to the scenario are applied to this copy. Updates will not be applied to the original scenario until it is saved using the **Save** menu option or toolbar button. Changes may be saved to a new scenario without affecting the original scenario by using the **Save As** menu option. Refer to the topic entitled ***Saving A Scenario*** for details.

When a study scenario is closed, the BellSouth Cost Calculator will attempt to delete this temporary directory. If a file in the temporary directory is still in use, the Cost Calculator will not be able to delete it. This may occur if one of the Excel worksheets in a scenario was in use and the Calculator abnormally terminated or because you opened a file in Excel and did not close it.
After the Cost Calculator identifies a problem deleting an Excel file, you may solve the problem by going into Windows Explorer and double-clicking the file and closing Excel. This may also occur if Windows Explorer is open and the study temporary directory has been selected.

Opening An Existing Study Scenario

To open a scenario associated with the currently open study or a scenario in a different study directory, select the **File | Open Study Scenario** menu option or click the Open Study Scenario toolbar button. If you currently have a scenario open and that scenario has been changed, you will be asked if you want to save the currently open scenario before continuing. If you elect to continue, the following dialog box will be displayed:



To open a study scenario:

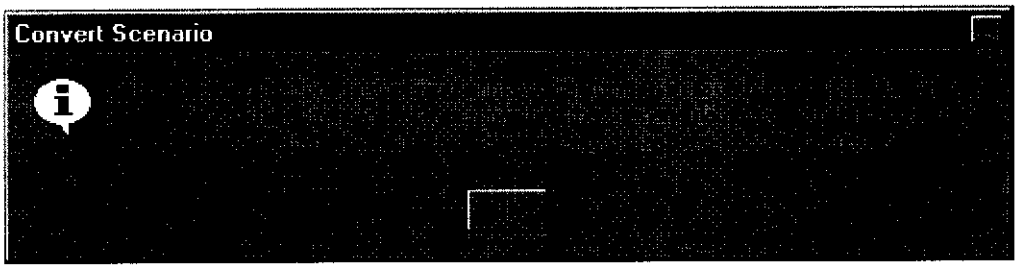
1. Use the mouse to select the drive and path where the study directory is located. If the directory selected is a valid study directory, one or more scenarios should be displayed in the Scenarios box at the bottom of the dialog box.

2. Click the scenario name to select it.

3. Click the **OK** button.

Opening An Existing Study Scenario

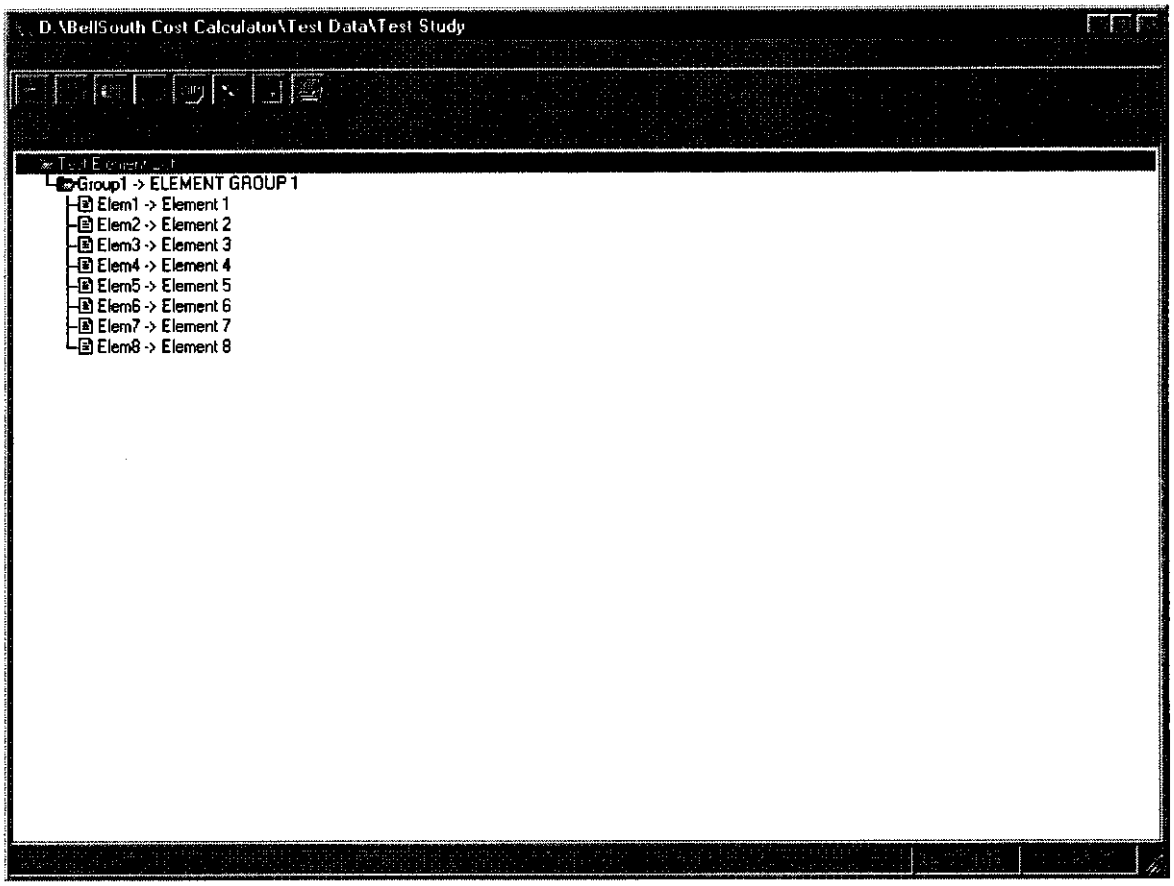
If the scenario you are opening was created in an older version of the Cost Calculator, the scenario may not be compatible with the latest version. In order for the Cost Calculator to open the scenario, it must be converted from the old format to the new format. The following message box will be displayed:



Please note that the original scenario is not altered. Only the temporary working copy of the scenario is converted. The conversion will not become permanent until the scenario is saved.

Scenario Edit Screen

The Scenario Edit Screen is used to modify and save study scenarios. It is same as the opening screen, except that more menu and toolbar options are available. The Cost Calculator logo is no longer displayed and the Element Window displays the elements for the currently open scenario if there have been any defined. Below is an example of the screen after opening a scenario:



Notice that the screen has more options available. These options will be discussed in more detail below.

Scenario Edit Screen

Menus

File

Open Study/Scenario - Select this option to open a scenario in the current study or a different study.

Close Study - Select this option to close the currently open study. If the study scenario has been changed, you are given the opportunity to save the scenario before the study is closed.

Save Scenario - Select this option to save the current scenario. If the current scenario has not been previously saved, you will be prompted for a name to save the scenario to.

Save Scenario As - Select this option to save the current scenario to a different name. The open scenario will be closed and the newly saved scenario will be opened.

Print Setup - Select this option to designate and configure the printer that will be used to print reports.

Print - Select this option to print the reports for the selected elements. This may also be accomplished by clicking the Print button on the toolbar.

Delete Scenario - Select this option to delete one or more scenarios in the currently opened study. ***Note: You can not delete the currently open scenario or the last remaining scenario in a study. At least one scenario is required for a study.***

1 ... 4 - The Cost Calculator maintains a history of up to four scenarios that you have accessed. You may select one of these menu options to open the corresponding scenario.

Clear File History - Select this option to clear the file history.

Exit BellSouth Cost Calculator - Select this option to exit the Cost Calculator.

Scenario Edit Screen

View

Outline - Select this option to display the scenario's cost elements in an outline format.

Elements Only - Select this option to display the elements only.

Inputs

Element List - Select this option to display the Elements Screen. This screen is used to display element details. Refer to the topic entitled ***Elements Screen*** for details.

Factor Application - Select this option to display the Factor Application Screen. This screen is used to display the Factor Application Matrix used in the scenario. Refer to the topic entitled ***Factor Application Screen*** for details.

Factors - Select this option to display the Factors Screen. This screen is used for displaying and modifying factors in the scenario. Refer to the topic entitled ***Factors Screen*** for details.

Labor Rates - Select this option to display the Labor Rates Screen. This screen is used for displaying and modifying labor rates in the scenario. Refer to the topic entitled ***Labor Rates Screen*** for details.

Material Investments, Additives, and Labor - Select this option to display the Material Investments, Additives, and Labor screen. This screen is used for displaying and modifying material investments, additives, and labor in a scenario. Refer to the topic entitled ***Investments, Additives, and Labor Screen*** for details.

Scenario Edit Screen

Outputs

Element Detail Reports – Select this option to display the output reports for the element you have selected in the element or outline view window. You may choose to view the reports in Crystal Reports or Excel format. For more details on viewing Crystal Reports, refer to the topic entitled ***Viewing Reports***. You may also click the View Outputs toolbar button or double-click an element in the element or outline view to display reports.

Element Summary Reports (Last Run) – Select this option to display an output summary report for the elements that were included in the last run. This report may be viewed in Crystal Reports or Excel.

Element Summary Reports (All Elements) – Select this option to display an output summary report for all elements in the current scenario. This report may be viewed in Crystal Reports or Excel.

Scenario Summary Report – Select this option to display a report that provides a summary of the current scenario including the general study parameters and inputs.

Export to Excel – To export the output reports for one or more elements, select the desired elements in the element or outline view window and select this menu option.

Help

Contents - Select this option to display the help table of contents.

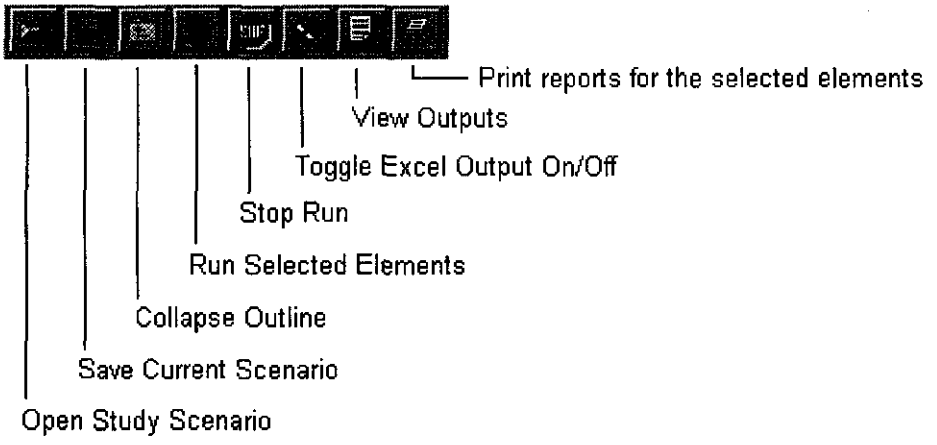
Search - Select this option to search the help topics index.

About - Select this option to display version information.

Scenario Edit Screen

Toolbar

Toolbar buttons will vary depending on the status of the scenario and options that have been set.



Scenario Edit Screen

Element Window

Outline View

The Element Window is similar to Windows Explorer. When the outline view is selected, a list of folders is displayed. These folders represent cost element groupings. Clicking a folder opens it so that you can see the elements and/or folders grouped under it. The selected item will be highlighted. Clicking on the same folder again will close the folder. Cost elements are denoted by a page icon. When the outline view is selected, you may only select one item from the list. That item may be a folder of elements or an individual element. The item you select will affect other functions on the screen. If you select a folder and click the Run toolbar button, all elements group in the folder will be included in the run. Selecting nothing is equivalent to selecting all. If you select the topmost folder, all elements will be displayed or run.

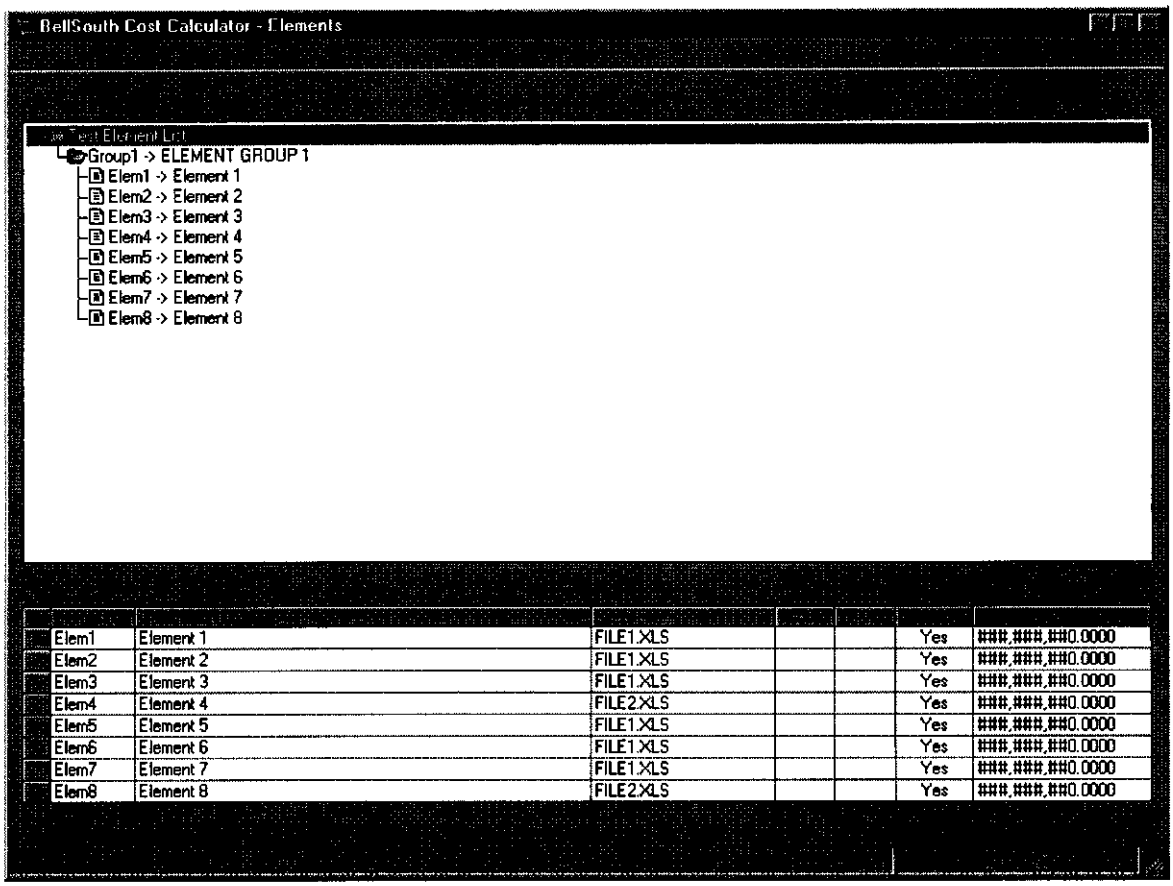
To quickly close all of the folders in the outline, click the Collapse Outline toolbar button.

Elements Only View

When the elements view is selected, only the cost elements are displayed. You may select one or more elements by using the standard Windows selection keystrokes. Holding down the **<Ctrl>** key while clicking with the mouse allows you to select multiple elements. To select a block of elements, click the first element in the block, hold down the **<Shift>** key and click the last element in the block. The selected block of elements will be highlighted. Like the outline view, the elements that are selected will be included in the run if the Run button is clicked. Also, the selected elements will be displayed on the Material Investments, Additives, and Labor Screen. To deselect all selected elements, click the Collapse Outline toolbar button.

Elements Screen

The elements screen is used to display the details of the elements included in a study scenario. Below is an example of the Elements Screen:



The options available on this screen are detailed below.

Elements Screen

Menus

File

Close current screen - Select this option to close the Elements Screen and return to the Scenario Edit Screen.

Help

Contents - Select this option to display the help table of contents.

Search - Select this option to search the help topics index.

About - Select this option to display version information.

Element Outline

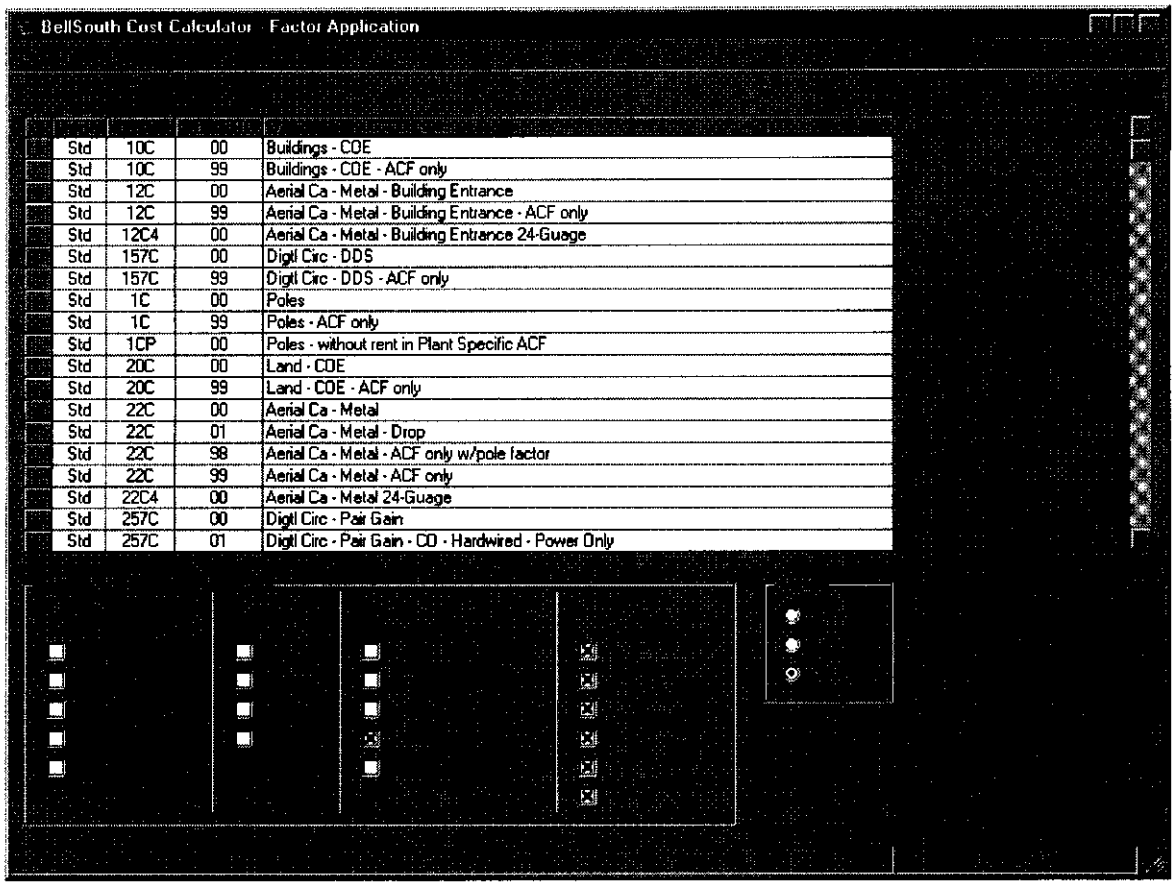
The elements in the scenario are displayed in an outline format much like Windows Explorer. Clicking a folder will open the folder and display the elements that are included in the folder. Clicking the folder again will close the folder.

Details

The details for each element are displayed at the bottom of the Elements Screen. When an element is selected in the element outline, the detail section will scroll to the detail record for that element.

Factor Application Screen

The Factor Application Screen is used to display the factor application matrix that is being used in a scenario. It is displayed by selecting the **Inputs | Factor Application** menu option on the **Scenario Edit Screen**. Below is an example of the Factor Application Screen:



The options that are available on this screen are detailed below.

Factor Application Screen

Menus

File

Print Setup - Select this option to designate and configure the printer that will be used to print reports.

Print - Select this option to print the factor application matrix.

Close current screen - Select this option to close the Factors Application Screen and return to the Scenario Edit Screen.

Help

Contents - Select this option to display the help table of contents.

Search - Select this option to search the help topics index.

About - Select this option to display version information.

FRC/Sub-FRC Table

The FRC/Sub-FRC table is populated with a record for every FRC/Sub-FRC combination. Included in the table are the record type (Std for Standard, User for User-defined), FRC, Sub-FRC, and description.

Factor Application

As you scroll through the FRC/Sub-FRC table, the factor application for each FRC/Sub-FRC combination is displayed. The factors that are applicable are denoted with an **X**.

Factors Screen

To display the Factors Screen, select the **Inputs | Factors** menu option on the **Scenario Edit Screen**. This screen may be used to display and modify factors in a scenario.

The data on this screen is arranged into the following categories displayed on tabbed file folders:

Inplant
Loadings
Miscellaneous
Annual Cost Factors (excluding Cost of Capital factors)
Cost of Capital
Disconnect Factors
Global

You may switch between the categories by clicking on the tabs.

Menus

File

Print Setup - Select this option to designate and configure the printer that will be used to print reports.

Print - Select this option to print factors reports.

Close current screen - Select this option to close the Factors Screen and return to the Scenario Edit Screen.

Edit

Undo changes since last save - Select this option to undo the changes made to one or more factor categories since the scenario was last saved.

Factors Screen

Menus

View

Current Scenario - Select this option to display the factors based on the current state of the scenario.

Current Scenario Before Changes - Select this option to display the factors as they were before changes were made to the scenario.

Sources

Capital Cost Calculator (Open) - Select this option to open the Capital Cost Calculator.

Capital Cost Calculator (Apply changes to BellSouth Cost Calculator) – Select this option to apply the changes in the Capital Cost Calculator to the current scenario. If applicable, the changes in the Capital Cost Calculator will be applied to the BellSouth Shared and Common Cost Application to regenerate Shared, Common, and TELRIC labor rates based on the new Cost of Capital factors.

Shared and Common Cost Application (Open) - Select this option to open the BellSouth Shared and Common Cost Application.

Shared and Common Cost (Apply changes to BellSouth Cost Calculator) – Select this option to apply the changes in the Shared and Common Cost Application to the current scenario. This includes the Shared, Common, and TELRIC labor rates.

Inflation Factor Methodology – Select this option to display an Excel worksheet that documents the methodology used to calculate Inflation factors.

Factors Screen

Help

Contents - Select this option to display the help table of contents.

Search - Select this option to search the help topics index.

About - Select this option to display version information.

Current Record

As you move around in the factors tables by clicking with the mouse or using the arrow keys, the description for the currently selected record will be displayed at the top of the tab.

Source

As you navigate the factors tables, the file that the factors were loaded from will be displayed as a blue hypertext link. To view a description of the file, click the link with the mouse. If a factor is not applicable for an FRC, "----" will be displayed in the table and the Source field will indicate that the factor is not applicable for the FRC in question.

Modifying Factors

You may modify the factors by clicking on the cell you want to modify, typing the new value, and pressing **<Enter>** or moving to another row in the table. If you type into a cell but do not press **<Enter>** or move to another row, you will lose your change if you click on another tab. Some factors may only be modified in the source model such as the Capital Cost Calculator or Shared and Common Cost Application. When you attempt to modify one of these factors, you will be informed that you will have to open the source model to modify these factors. If you manually update a factor, an indicator will be displayed below the Source field to indicate the manual update.

Labor Rates Screen

To display the Labor Rates Screen, select the **Inputs | Labor Rates** menu option on the **Scenario Edit Screen**. This screen may be used to display, and modify labor rates in a scenario.

Menus

File

Print Setup - Select this option to designate and configure the printer that will be used to print reports.

Print - Select this option to print labor rates reports.

Close current screen - Select this option to close the Labor Rates Screen and return to the Scenario Edit Screen.

Edit

Undo changes since last save - Select this option to undo the changes made to the labor rates since the scenario was last saved.

View

Current Scenario - Select this option to display the labor rates based on the current state of the scenario.

Current Scenario Before Changes - Select this option to display the labor rates as they were before changes were made to the scenario.

Options

Set TELRIC Labor Rates Equal To Direct Labor Rates - Select this option to set the TELRIC labor rates equal to the direct labor rates.

Set Direct Labor Rates Equal To TELRIC Labor Rates - Select this option to set the direct labor rates equal to the TELRIC labor rates.

Labor Rates Screen

Menus

Help

Contents - Select this option to display the help table of contents.

Search - Select this option to search the help topics index.

About - Select this option to display version information.

Current Record

As you move around in the labor rates table by clicking with the mouse or using the arrow keys, the description for the currently selected record will be displayed at the top of the tab.

Source

As you navigate the labor rates table, the name of the file that the labor rates were loaded from will be displayed as a blue hypertext link. To view the methodology for creating the labor rates, click the link with the mouse.

Modifying Labor Rates

You may modify the labor rates by clicking on the cell you want to modify, typing the new value, and pressing **<Enter>** or moving to another row in the table. If you manually update a labor rate, an indicator will be displayed below the Source field to indicate the manual update.

Investments, Additives, and Labor Screen

To display the Investments, Additives, and Labor Screen, select the **Inputs | Material Investments, Additives, and Labor** menu option on the **Scenario Edit Screen**. This screen may be used to display, and modify material investments, recurring and non-recurring labor work times, and recurring and non-recurring additives.

The data on this screen is arranged into the following categories displayed on tabbed file folders:

Investments
Recurring Additives
Non-Recurring Additives
Recurring Labor (Hours)
Non-Recurring Labor (Hours)

You may switch between the categories by clicking on the tabs.

Menus

File

Load Loop Model investments – Select this option to load investments from the Excel worksheets output by the BellSouth Loop Model. You will be prompted for the names and locations of the files to be loaded. ***This option is only available if the scenario contains elements with BellSouth Loop Model inputs.***

Print Setup - Select this option to designate and configure the printer that will be used to print reports.

Print - Select this option to print investments, additives, or labor reports.

Close current screen - Select this option to close this screen and return to the Scenario Edit Screen.

Investments, Additives and Labor Screen

Menus

Edit

Undo changes since last save - Select this option to undo the changes made to one or more investment categories since the scenario was last saved. You will be given the option of undoing changes to the selected record only, displayed elements only, or all elements. You may also undo changes made to the Excel input worksheets since the scenario was last saved.

View

Current Scenario - Select this option to display the values based on the current state of the scenario.

Current Scenario Before Changes - Select this option to display the values as they were before changes were made to the scenario.

Source

Open (*source*) – This option allows you to open the input source application for the currently selected record. As an alternative, as you scroll through the records, the Source hypertext link at the bottom of the tab will be updated with the name of the source application for the current element. You may also left-click this link to open the source application.

Apply changes in source to BellSouth Cost Calculator - Select this option to apply the changes that were made in the source application for the selected elements to the current scenario. You may also right-click the Source hypertext link at the bottom of the tab to apply the changes.

Current Record

As you move around in the investments, additives, and labor tables by clicking with the mouse or using the arrow keys, the description for the currently selected record will be displayed at the top of the tab.

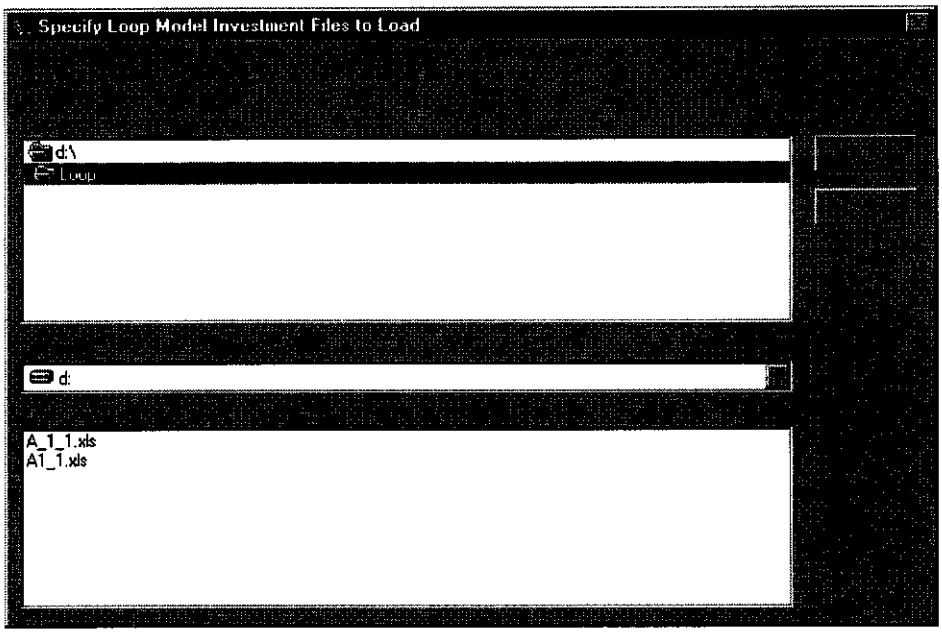
Investments, Additives and Labor Screen

Modifying Investments, Additives, and Labor

You may modify values by clicking on the cell you want to modify, typing the new value, and pressing **<Enter>** or moving to another row in the table. If you type into a cell but do not press **<Enter>** or move to another row, you will lose your change if you click on another tab.

Loading BellSouth Loop Model Investments

To load investment data from the worksheets created by the BellSouth Loop Model, select the **File | Load Loop Model investments** menu option on the **Investments, Additives, and Labor Screen**. The following dialog will be displayed:



Because the BellSouth Loop Model is run independently of the Cost Calculator, you must tell the Cost Calculator where the files are located and the names of the files. Use the drive and directory selection boxes at the top of the screen to select the drive and directory where the Loop Model files are located. All Excel files in the selected directory will be displayed in the list at the bottom of the screen. To select a file, click the file name. You may select one or more files by holding down the **<Ctrl>** key while clicking the file names. You may select a range of files by clicking the first filename in the range and holding down the **<Shift>** key while clicking the last filename in the range.

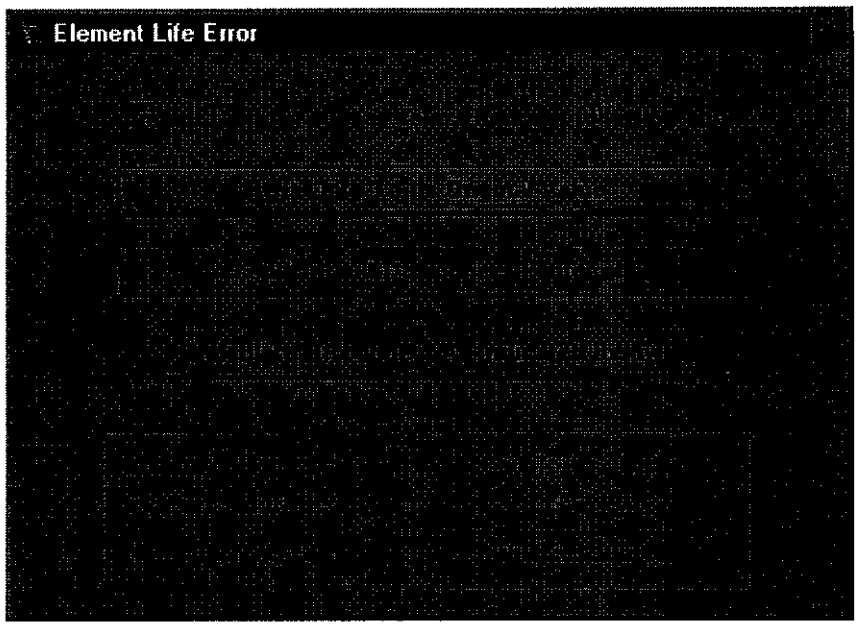
Once you have selected the files to be loaded, click the **OK** button. The Cost Calculator will open each of the selected files and load the investment data into the current scenario.

To exit this screen without loading Loop Model investments, click the **Cancel** button.

Note: Windows 95/98 contains an operating system error which may cause the Cost Calculator to stop responding when loading large amounts of data from Excel.

Recalculating Disconnect Factors

The Disconnect Factor for each element is calculated based on the Element Life specified in the Non-Recurring Labor table. Changing the life for an element will result in the recalculation of the Disconnect Factor for that element. In the event that the life specified is beyond the available range (i.e. date is too far in the future), the following dialog will be displayed:



The following options are available:

Reset Life To Its Original Value
The Life will be restored to its value before you made the change.

Accept Default Disconnect Factor of 1
The Disconnect Factor will be set to 1.

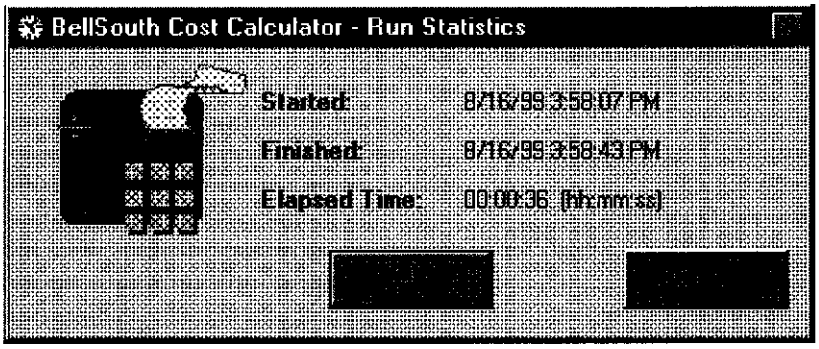
Calculate Disconnect As Indicated Below
The Disconnect Factor will be recalculated based on the End-Point factor for the last month in the disconnect lookup table. The calculation is displayed so that you may see what the factor will be.

Running A Scenario

To run the elements in a scenario, select the elements that you would like to run (refer to the *Outline View* and *Element View* topics in the topic entitled ***Scenario Edit Screen*** for details on selecting elements), click the Run button on the Toolbar on the **Scenario Edit Screen**. If you have completed all the steps necessary to build the scenario, the run will begin. If the scenario is incomplete, you will be told what remains to be done before the scenario can be run.

When the run begins, the Stop button on the Toolbar is enabled. To cancel the run before it completes, click the Stop button or press the Escape key. It may take a few seconds, but the run will be cancelled.

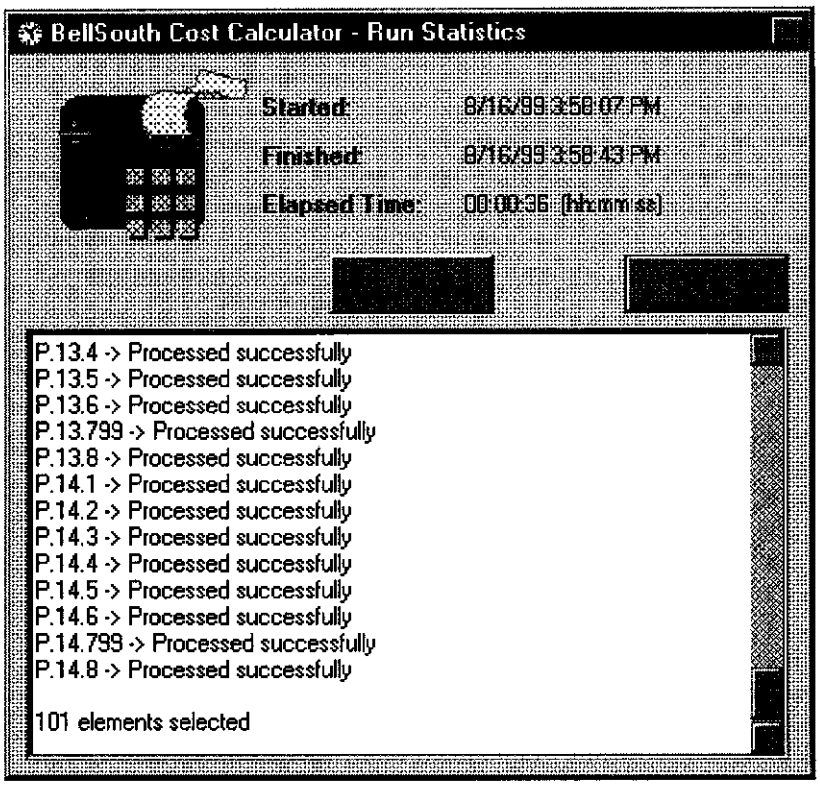
As the selected elements are processed, the status bar will be updated. The Run Statistics form will be displayed once the run is complete:



The start and finish times are displayed along with the total elapsed time.

Running A Scenario

If you would like to see more details about the run, click the **Details >>** button. The Run Statistics form will expand to display the details:



All of the elements that were selected for the run will be listed. The status of each element will be displayed and may be one of the following:

Processed successfully – The element was run successfully without error.

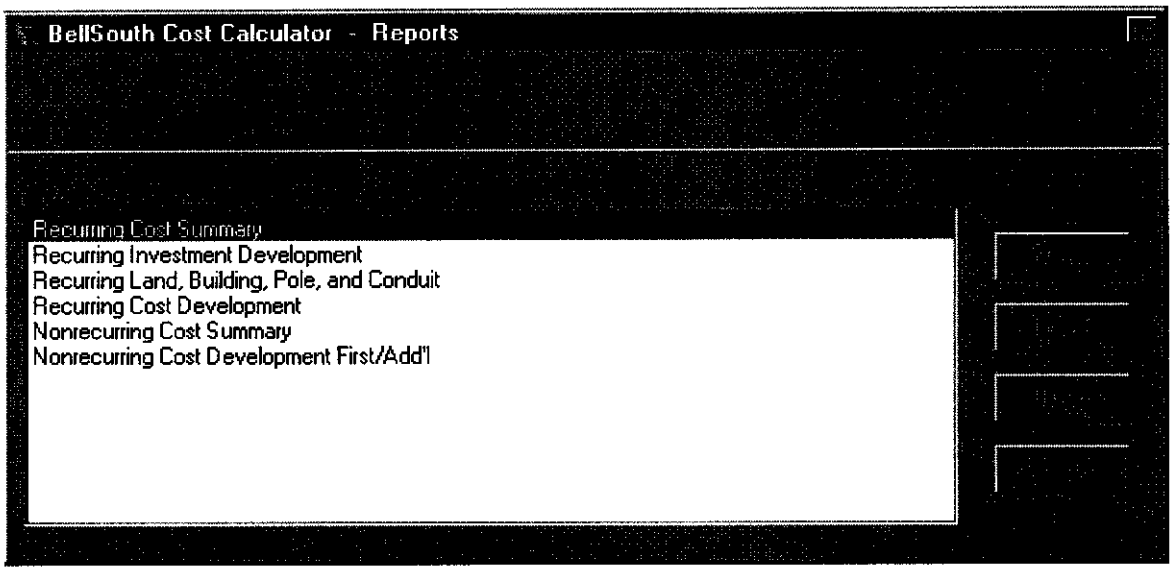
<<<<< ERROR >>>>> - An error occurred while the element was being processed. An error message should have been displayed during the run.

No output generated because element is an ICB – The element is an ICB, therefore no calculations were performed.

Cancelled – The element was selected for processing, but the run was stopped before the element could be processed.

Viewing Reports

When you choose to view the output reports for an element on the **Scenario Edit Screen**, the following report selection screen will be displayed:



At the top of the dialog, the element identifier and description are displayed. Depending on the element selected, a list of available reports is displayed. The following options are available:

View – To view a report, select it by clicking its name and then click the **View** button. You may optionally double-click the report to view it.

Print – To print a report, select it by clicking its name and then click the **Print** button.

Help – Click this button to display help.

Close - Click this button to close this dialog and return to the **Scenario Edit Screen**.

Saving A Scenario

When you create a scenario or make changes to an existing scenario, the changes are not made permanent until you save the scenario.

Note: If you close a scenario without saving it, all changes that you made to it will be lost!

To save a scenario click the **File | Save** menu option or **Save Study Scenario** toolbar button on the **Scenario Edit Screen**.

Saving An Existing Scenario

If the scenario you are working on has been saved previously, using the **File | Save Scenario** menu option or **Save Scenario** toolbar button will overwrite the existing scenario without prompting you.

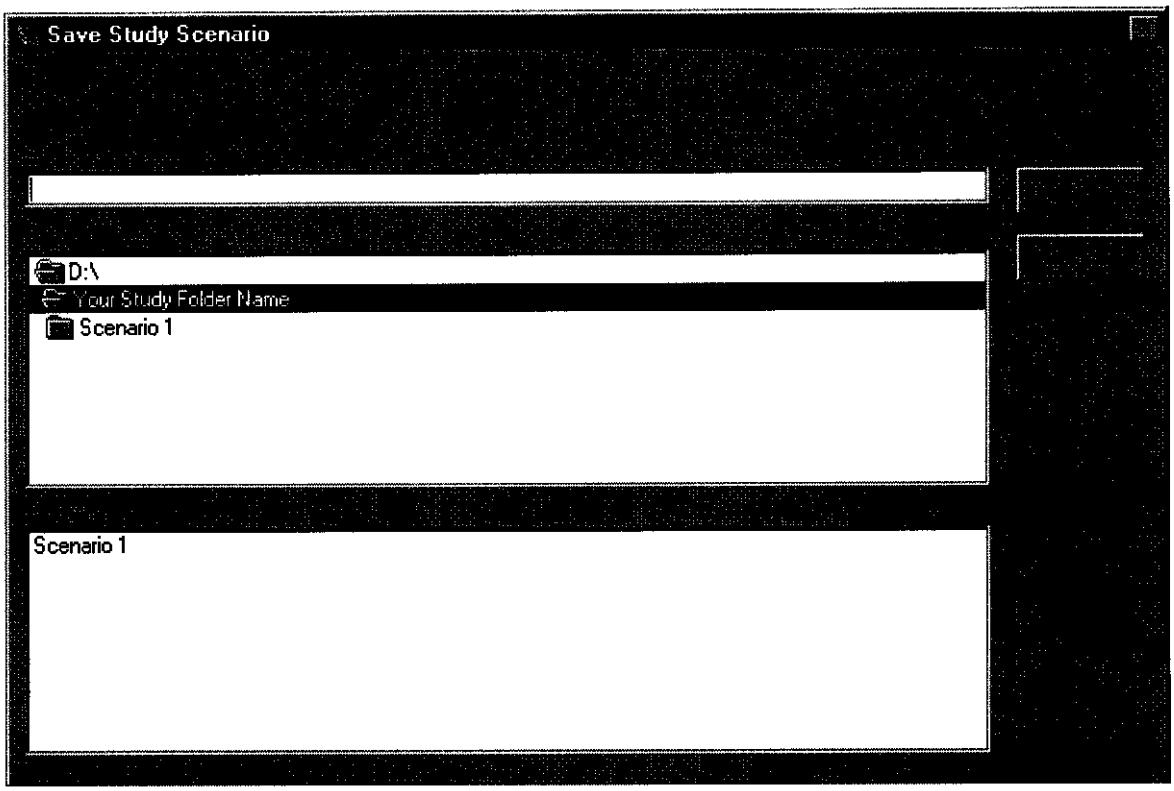
Note: If you want to save the changes to a different scenario name you must use the File | Save As menu option.

Saving A New Scenario

If you have created a new scenario or would like to save an existing scenario to a new name, use the **Save Scenario As** menu option. You will be prompted for a name for the new scenario:

Saving A Scenario

Saving A New Scenario



To save the scenario, specify a name in the Scenario Name text box and click **OK**.

Note: You may use the directory box to select another study directory in which to save the scenario. If you choose to do this, the specified directory will become the active directory.

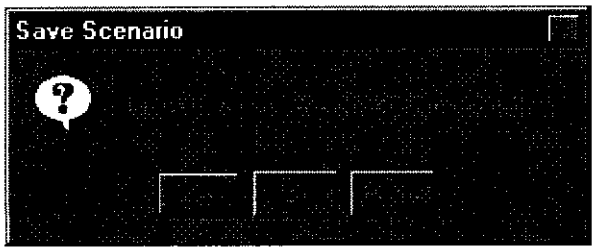
If you would like to overwrite an existing scenario that is listed in the Scenarios list, click the name of the scenario in the list or type it in the Scenario Name text box and click **OK**. You will be prompted to confirm that you really want to overwrite the scenario.

Depending on the number of input or output Excel files that have been updated in the scenario, the save may take up to approximately 30 seconds. Fewer updates will result in a much faster save time.

To exit this dialog without saving the scenario, click **Cancel**.

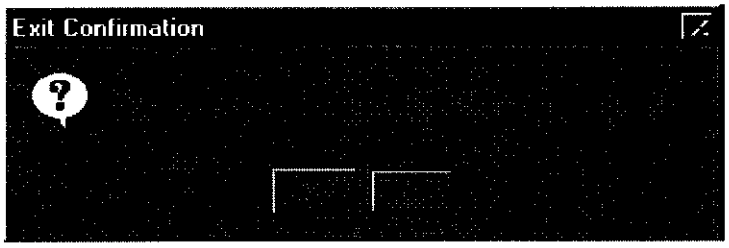
Exiting The BellSouth Cost Calculator

To exit the BellSouth Cost Calculator, select the **File | Exit BellSouth Cost Calculator** menu option on the **Scenario Edit Screen**. If a scenario is currently open and has been changed, you will be asked if you would like to save the changes:



Click **Yes** to save the scenario, **No** to close the scenario without saving it, or **Cancel** to abort the exit.

If you click **Yes** or **No**, the following confirmation will be displayed:



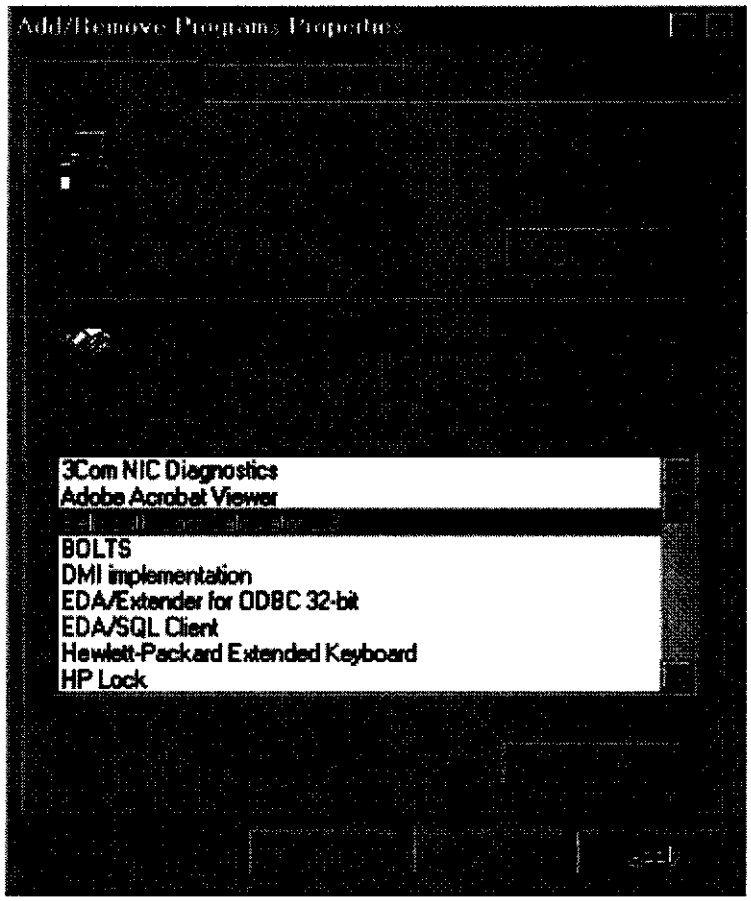
To exit, click **Yes**. To continue working in the BellSouth Cost Calculator, click **No**.

Uninstalling BellSouth Cost Calculator

To uninstall the BellSouth Cost Calculator, you must follow standard procedure for uninstalling applications in Windows 95, 98, or NT 4.0:

1. Access the Windows **Control Panel** by clicking the Start button then Settings, then Control Panel.

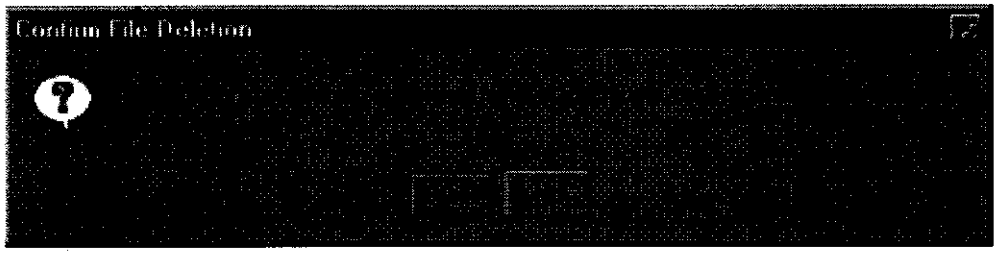
2. Double-click the **Add / Remove Programs** icon. The following dialog will be displayed:



3. Click the entry for BellSouth Cost Calculator 2.4 and then click the **Add/Remove** button.

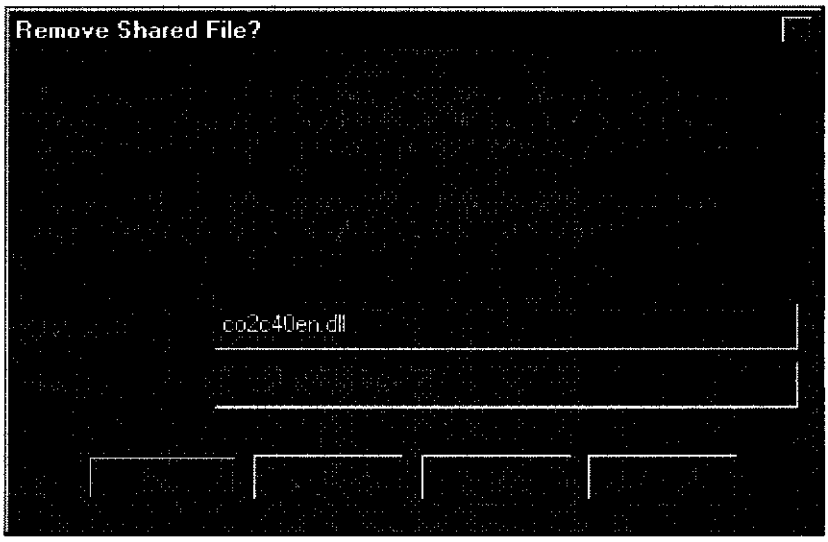
Uninstalling BellSouth Cost Calculator

4. You will be asked to confirm the removal of the application:



Click **Yes** to continue with the uninstallation or **No** to cancel.

5. **unInstallShield** will display the status of the application components as they are removed from your computer. Some of the files that were installed may be shared with other applications. **unInstallShield** will ask you if you want to remove these files:

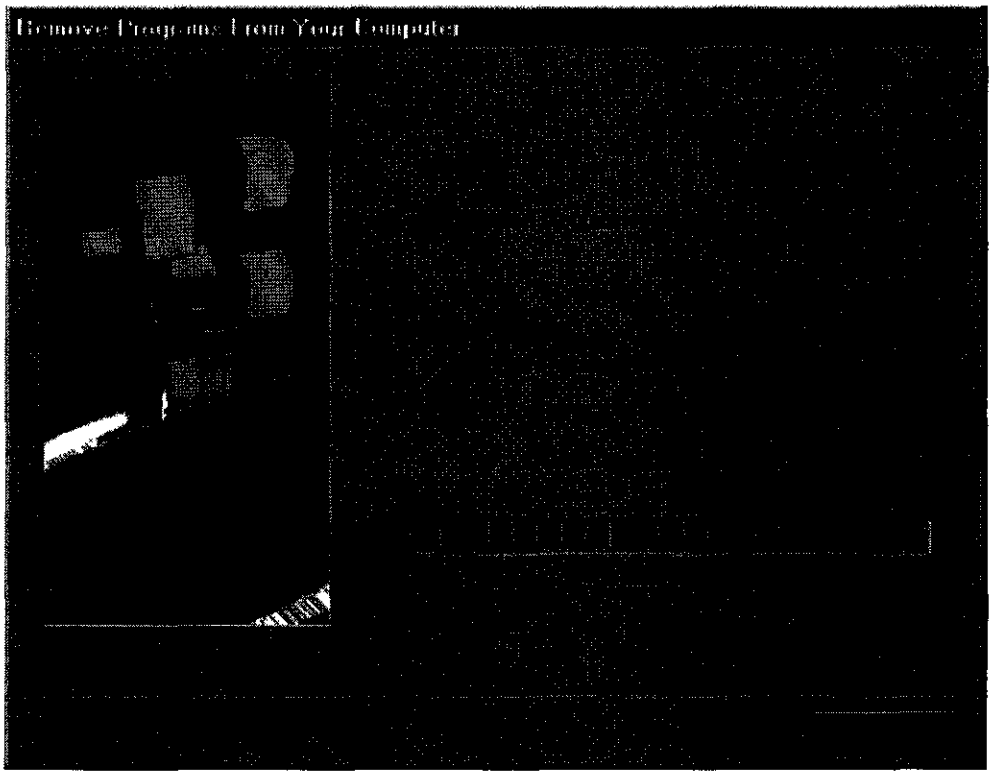


Although it may indicate that these files are no longer being used by any programs, it is highly recommended that you do not remove them. Click **No to All** to continue without uninstalling these files.

WARNING: If you choose to delete the shared files and there are other programs that use these files, those programs may stop working. If you uninstall these files by accident, you may reinstall them by installing the BellSouth Cost Calculator again and then uninstalling it, choosing* No to All. *This will restore the deleted files.

Uninstalling BellSouth Cost Calculator

6. The status screen will indicate when unInstallShield has completed the removal of the application:



unInstallShield can only remove files that were copied to your computer during the installation process. Files that have been created by the application since installation will not be removed. To see a list of what unInstallShield did not remove, click the **Details** button. You will have to manually remove these items.

Click **OK** to complete the uninstallation. BellSouth Cost Calculator 2.4 should no longer appear in the **Add / Remove Program Properties** dialog.

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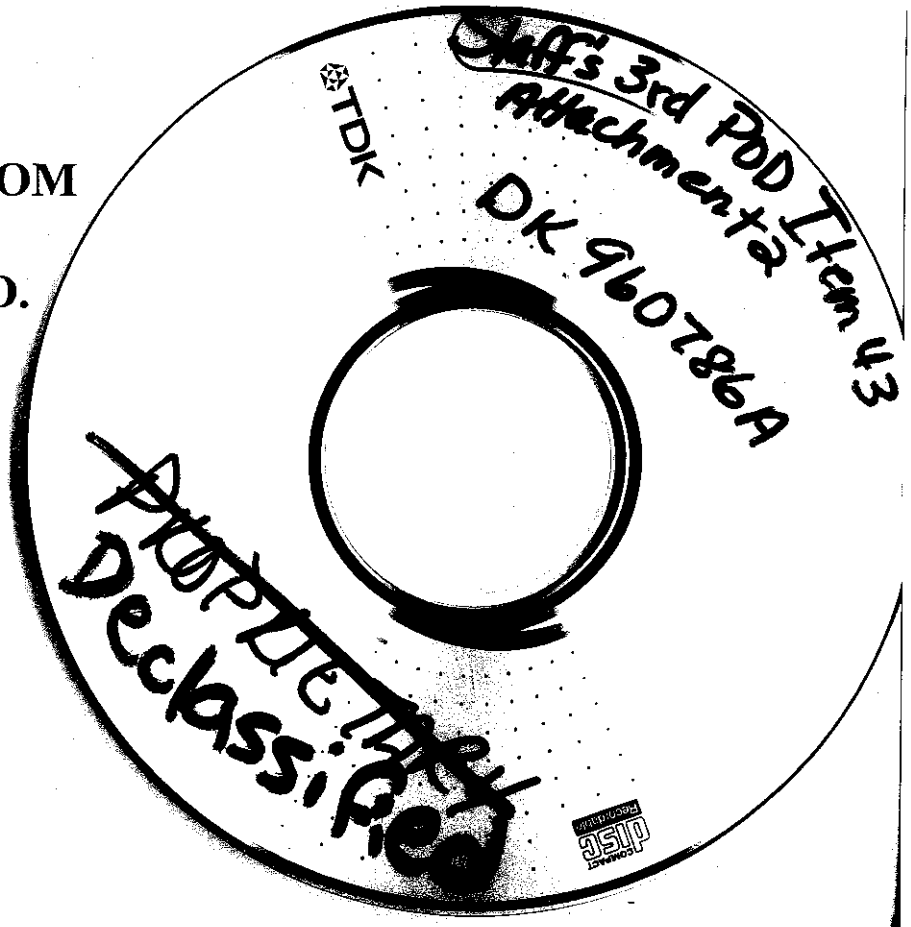

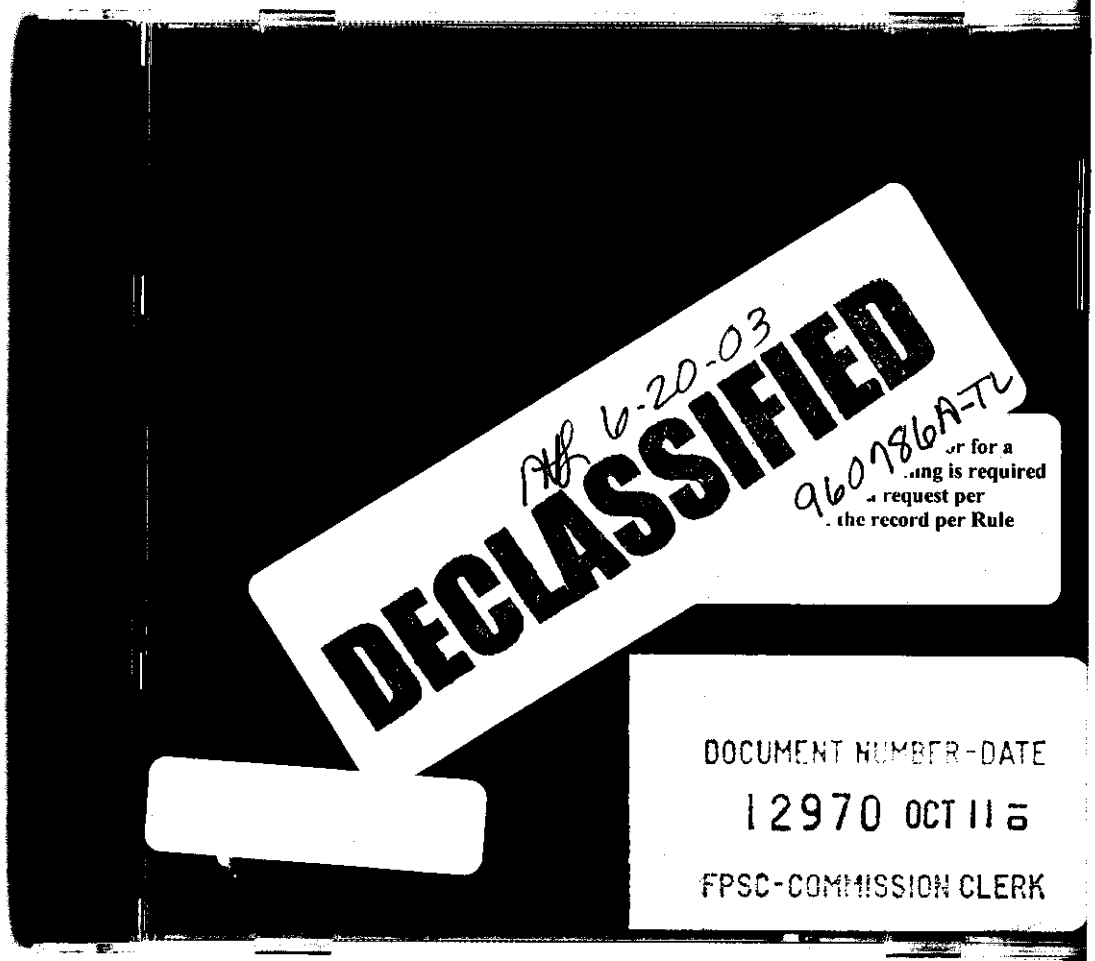

FLORIDA DOCKET NO. 960786-TL
TABLE OF CONTENTS

SECTION 1 EXECUTIVE SUMMARY

STATEMENT OF PURPOSE
OVERVIEW
PROCESS FLOWCHARTS

SECTION 2 BELLSOUTH COST SUMMARY

SECTION 3 STUDY METHODOLOGY

TOTAL ELEMENT LONG RUN INCREMENTAL COST (TELRIC)
RECURRING COSTS
NONRECURRING COSTS

SECTION 4 DESCRIPTION OF MODELS AND PRICE CALCULATORS

1. BELLSOUTH COST CALCULATOR©
2. CAPITAL COST CALCULATOR©
3. DS1 CHANNELIZATION PRICE CALCULATOR
4. MAIN DISTRIBUTING FRAME (MDF) MATERIAL PRICE STUDY

SECTION 5 INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

1. BELLSOUTH REGION TELEPHONE PLANT INDEXES
   INVESTMENT INFLATION FACTORS
2. INPLANT LOADINGS
3. SUPPORTING STRUCTURE LOADINGS
4. LOADINGS
   - SUPPORTING EQUIPMENT AND POWER
   - LAND AND BUILDING
   - POLE AND CONDUIT
   - RIGHT-TO-USE (RTU)

5. ANNUAL COST FACTORS
   CAPITAL COSTS FACTORS
   PLANT SPECIFIC EXPENSE FACTORS
   AD VALOREM AND OTHER TAXES
   GROSS RECEIPTS TAX FACTOR
6. DISCONNECT FACTORS
7. LABOR RATES
8. SHARED AND COMMON COST FACTORS

SECTION 6 UNBUNDLED NETWORK ELEMENT STUDIES

INTRODUCTION
LIST OF COST ELEMENTS
NARRATIVES
   ELEMENT DESCRIPTION
   STUDY TECHNIQUE
   SPECIFIC STUDY ASSUMPTIONS
BELLSOUTH COST CALCULATOR OUTPUTS
WORKPAPERS
   STUDY INPUTS
   TELRIC CALCULATOR© INPUTS
   STUDY WORKPAPERS

APPENDIX A CAPITAL COST CALCULATOR

MODEL DESCRIPTION
ILLUSTRATIVE EXAMPLE OF CAPITAL COST
CALCULATOR CALCULATIONS(electronic only)

APPENDIX B LOADINGS, FACTORS AND LABOR RATES

SHARED AND COMMON COST SUPPORTING
DOCUMENTS
   DESCRIPTION OF OPERATING EXPENSE PROJECTION
   CALCULATION
   SUPPORTING MICROSOFT EXCEL WORKSHEETS
BELLSOUTH REGION TELEPHONE PLANT INDEXES
   AND INVESTMENT INFLATION FACTORS
FACTORS AND LOADINGS – INPLANT; PLUG-IN,
   HARDWIRED; SUPPORTING EQUIPMENT AND POWER;
   PLANT SPECIFIC; LAND AND BUILDING; POLE AND
   CONDUIT; RTU FEE

DISCONNECT FACTORS
AD VALOREM AND OTHER TAXES
STATE AND FEDERAL INCOME TAXES
LABOR RATES

APPENDIX C BELLSOUTH COST CALCULATOR

BELLSOUTH COST CALCULATOR USER GUIDE
COMPACT DISK

FLORIDA DOCKET NO. 960786-TL
SECTION 1
EXECUTIVE SUMMARY

STATEMENT OF PURPOSE

BellSouth Telecommunications, Inc. (BellSouth) is herewith filing Total Element Long Run Incremental Cost (TELRIC) studies, including shared and common costs, (i.e., the economic cost) for Collocation and Line Sharing Unbundled Network Elements (UNEs).

OVERVIEW

Historically, BellSouth prepared Long Run Incremental Cost (LRIC) studies to support tariff prices for telecommunications services. The LRIC result, which considered only the volume sensitive costs, constituted the price floor for the service in question, and was one of a number of factors considered when establishing the price for a service. BellSouth also conducted Total Service Long Run Incremental Cost (TSLRIC) studies that addressed not only the volume sensitive costs but also considered the directly attributable volume insensitive costs. TSLRIC studies were used to ensure that the service was not being subsidized. With the advent of local competition as envisioned by the Telecommunications Act of 1996 (the Act), it became necessary for BellSouth to conduct cost studies to determine the costs associated with certain components or elements of its telecommunications network. BellSouth's TELRIC studies comply with the requirements of the Act and are in compliance with the FCC's as well as the Florida Public Service Commission's rules and regulations issued to implement the provisions of the Act.

ORGANIZATION OF REMAINDER OF DOCUMENT

Section 1 - The remaining pages of Section 1 provide a flowchart of the TELRIC study process.
Section 2 Includes the Unbundled Element Cost Summary
Section 3 - Includes an explanation of the TELRIC methodology, and the recurring and nonrecurring cost development process.
Section 4 - Contains a description and explanation of the models and price calculators used.
Section 5 - Describes each of the factors and loadings used in the studies and explains their development.
Section 6 - Contains a description of the UNEs and an overview of the study process for each category of UNEs.

FLORIDA DOCKET NO. 960786-TL
SECTION 1
EXECUTIVE SUMMARY

INSERT TELRIC CALCULATION FLOWCHART – ONE PAGE

FLORIDA DOCKET NO. 960786-TL
SECTION 1
EXECUTIVE SUMMARY

INSERT BELLSOUTH COST CALCULATOR WORKFLOW PROCESS CHART - ONE PAGE

FLORIDA DOCKET NO. 960786-TL
SECTION 2
UNBUNDLED ELEMENT COST SUMMARY

BELLSOUTH COST SUMMARY

FLORIDA DOCKET NO. 960786-TL
SECTION 3
STUDY METHODOLOGY

TOTAL ELEMENT LONG RUN INCREMENTAL COST (TELRIC)

BellSouth's cost studies are compliant with the FCC's TELRIC standards. Thus, they are consistent with the FCC's costing methodology as set forth in FCC Rule 51.505. Pursuant to the FCC's rules, such costs must be developed using an efficient network configuration that uses the existing location of the Incumbent Local Exchange Carrier's (ILEC's) wire centers. Further, the costs should be developed using a forward-looking cost of capital and economic depreciation rates, and a reasonable allocation of forward-looking common costs is appropriate. The forward-looking economic costs may not include embedded costs, retail costs, opportunity costs or revenues to subsidize other services. The FCC's recent UNE Remand Order did not adjust the TELRIC cost methodology.

There are two generic types of costs that have been studied: recurring and nonrecurring.

RECURRING COSTS

The monthly costs resulting from capital investments deployed to provision network elements are called recurring costs. Recurring costs include capital and operating costs. Capital costs include depreciation, cost of money and income tax. Operating costs include the expenses for maintenance, ad valorem and other taxes and represent ongoing costs associated with upkeep of the initial capital investment. Gross receipts tax (which includes municipal license taxes and PSC fees) is added.

The first step in developing recurring TELRIC studies is to determine the forward-looking network architecture that, when deployed, represents the most efficient design to provision the network element. The material prices for the equipment and their respective capacities necessary to implement the forward-looking design are gathered. Next, account specific Telephone Plant Indexes (TPIs) are applied, when necessary, to trend material prices to the base study period. Telecommunications equipment and plant placements are typically "lumpy". Thus, utilization (or fill) factors are applied to the material prices to reflect BellSouth's forward-looking actual utilization of the plant. Also, when multiple vendors are used, it is necessary to determine the average material price for a typical element based on the probability of occurrence. Inflation Factors, by plant account code, are then applied to the material prices to trend the base-year material price to levelized amounts that are valid for a three-year planning period. In order to convert the material prices to installed investments, account specific inplant loadings are applied to the material prices. The inplant loadings include engineering and installation labor (potentially both BellSouth and vendor), exempt material and sales taxes.

Supporting equipment and power loadings are added, as appropriate, to specific investment accounts. Next, support structure investments for land, building, poles

and conduit are developed. These support structure investments are identified by their relationship to the respective item of plant being supported. For example, applying a pole-loading factor to the aerial cable investment develops the pole investment. An accounting change, effective 1999, reclassified Right-To-Use (RTU) fees from expense to capital. In order to reflect the capitalized RTU fees (560C) associated with central office investments (377C), BellSouth also developed a RTU fee loading factor.

Annual Cost Factors are used to calculate the direct cost of capital, plant specific expenses and taxes. Account specific factors for each Uniform System of Accounts – Field Reporting Code (USOA-FRC) are applied to the installed investment by account code, yielding an annual cost per account code. Account specific shared cost factors are applied then the gross receipts tax factor is applied to produce forward-looking TELRIC costs. The common cost allocation factor is then applied. The result is the economic cost.

The generic steps for developing recurring cost can be summarized as shown below. However, the unique technical characteristics and physical makeup of each cost element must be taken into consideration.

Step 1: Determine the forward looking, efficient network designs (architectures) which will be used in deployment of the network element.

Step 2: Determine current material prices for the items of plant used in each design. Material prices are obtained from BellSouth contracts with various vendors and thus, reflect the current discounts.

Step 3: Apply material Telephone Plant Indexes (TPIs) as appropriate to determine the base year material prices. Material TPIs estimate the changes in material prices over time.

Step 4: Adjust the material prices for utilization to account for spare capacity using a reasonable projection of actual total usage.

Step 5: Weight the material prices, as appropriate, to determine the average material price for a typical element by USOA-FRC, i.e., plant account.

Step 6: Apply material inflation factors to the material prices to convert the utilized base year material prices to material prices representative of a three year planning period.

Step 7: Apply inplant loadings to the inflated material prices to convert the material prices to an installed investment, which includes the cost of material, engineering labor and installation labor.

Step 8: Apply support loadings to the investments to determine investments for support equipment and power, RTU fees, land, buildings, poles and conduit as appropriate.

Step 9: Convert the investments by FRC to annual costs by applying account specific TELRIC annual cost factors to the various investments. The annual cost factors calculate the capital costs (depreciation, cost of money, and income tax) and operating expenses (plant specific expense, ad valorem taxes, and other taxes). Add the annual costs for the various FRCs. Next divide by 12 to determine the direct monthly cost. (Not all elements are expressed on a monthly basis. For example, elements charged on a per minute of use basis are not divided by 12.)

Step 10: Apply the shared cost (account specific) factors. Then apply the gross receipts tax factor. The result is TELRIC.

Step 11: Apply the common cost allocation factor to determine economic costs.

NONRECURRING COSTS

Nonrecurring costs are one-time expenses associated with provisioning, installing and disconnecting an unbundled network element or a combination. These costs potentially include five major categories of activity: service inquiry, service order processing, engineering, connect and test, and technician travel time. Examples of the work activities in each of these categories are:

Service Inquiry – Review network facilities for availability

Service Order Processing - Prepare and issue service orders

Engineering - Assign cable and pair; design circuit; order plug-in; perform translations in the switch

Connect and Test - Install circuit; test circuit; disconnect

Technician Travel Time - Travel to the customer's premises

The first step in developing nonrecurring costs is to determine the cost structure, i.e., determine if the costs occur only once, on a first and additional basis, or on an initial and subsequent basis. Individuals familiar with the provisioning process associated with each unbundled network element or combination describe the tasks required to handle a service request from a CLEC. In other words, they determine the workflow. Then, subject matter experts identify the amount of time

required to perform the tasks and also determine the probability that the activity will occur. Nonrecurring costs are developed by multiplying the work time for each work function by the labor rate for the work group performing the function.

Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as the installation costs.

The generic steps for developing nonrecurring costs are summarized in the following steps:

Step 1: Determine the cost structure.

Step 2: Define the work functions.

Step 3: Establish work flows.

Step 4: Determine work times for each work function.

Step 5: Develop labor costs for each work function (labor rate x work time).

Step 6: Accumulate work function costs to determine the total nonrecurring costs for each cost element. Add gross receipts tax. The result is TELRIC.

Step 7: Apply the Common Cost Allocation factor to determine the economic costs.

FLORIDA DOCKET NO. 960786-TL
SECTION 4
DESCRIPTION OF MODELS AND PRICE CALCULATORS

1. BellSouth Cost Calculator

The BellSouth Cost Calculator, a model developed by BellSouth, produces long run incremental cost studies. The model was designed to accept variable inputs that are applied according to a user-controlled matrix. The BellSouth Cost Calculator© was used to produce the TELRIC studies included in this filing.

The BellSouth Cost Calculator is a Microsoft Visual Basic application that is used to create cost study scenarios that are stored in a Microsoft Access database. The BellSouth Cost Calculator allows users to access and modify these scenarios to create new scenarios. Each scenario contains all the data necessary to produce a cost study.

The BellSouth Cost Calculator takes information from the default data sources or from the user-modified sources and stores them in tables within the scenario database. Investments are stored by Field Reporting Code (FRC), Sub Field Reporting Code (Sub-FRC), and cost element number. The sub-FRC is used by the BellSouth Cost Calculator to determine the appropriate application of factors and loadings. The factors and loadings are applied based on a "Factor Application" matrix. This matrix can be viewed or printed from the BellSouth Cost Calculator under the "Inputs – Factor Application" menu item. Factors and loadings are stored by FRC.

Recurring and nonrecurring work times are stored by function and Job Function Code (JFC) or Job Grade. Other recurring and nonrecurring expenses are stored by description and cost element number. Lastly, labor rates are stored by JFC or Job Grade. The output reports are by default created in a Crystal Report format that can be viewed or printed, however, the user can also export any report to an Excel file.

BellSouth Cost Calculator Recurring Cost Development

Investment Development (Excluding Land, Building, Pole, & Conduit)
Volume sensitive and volume insensitive material prices by FRC and sub-FRC are converted to investments by applying inflation factors, inplant loadings and supporting equipment and/or power loadings, if applicable. As stated previously, the application of these factors/loadings is driven by a "Factor Application" matrix. If the factor/loading is not applicable to the FRC and sub-FRC, the material price is multiplied by the default value of one. All calculations are detailed above each column on the output sheets.

Land, Building, Pole, & Conduit Investment Development
Investments from the Investment Development process flow into the Land, Building, Pole, and Conduit module. This module applies land, building, pole, and conduit loadings to the investments. If land, building, pole, and conduit investments are directly calculated in the Investment Development process, they are multiplied by a factor of one. If one or all of these factors do not apply to an FRC, excluding land, building, pole, and conduit FRCs, the factor defaults to zero. The results are then summed and passed to the Recurring Cost Development process. All calculations are detailed above each column on the output sheets.

Network Switch RTU Fees (560C)
If the study identifies a 377C switching investment associated with an end office or tandem switch, the 560C factor is utilized to develop the software RTU investment. The Simplified Switching Tool (SST) computes switch RTU fees by applying the RTU fee loading factor (FRC 560C) to the primary switch (377C) investment. SST provides the 377C and 560C investments separately for input to the Recurring Cost Development process.

Recurring Cost Development
The investments from the Investment Development and the Land, Building, Pole, and Conduit Investment Development modules are summed to the FRC level and flow into the Recurring Cost Development module. This process applies depreciation, cost of money (COM), income tax, plant specific, and ad valorem tax factors to the investments. If a factor does not apply, the default is zero. These results are then summed to produce direct cost. All calculations are detailed above each cell. The shared cost factor is applied to the investments to produce shared cost and then added to direct cost to produce TELRIC. If the input investments are annual investments, the outputs are divided by twelve to produce monthly costs. The results then flow to the Recurring Economic Cost Development process.

Recurring Labor Expense Development
Recurring labor work times associated with a work function and a JFC or Job Grade are multiplied by the appropriate labor rates, determined by the JFC or Job Grade, to produce the expenses.. These expenses flow to the summary process, i.e., the Recurring Cost Development process. All calculations are detailed above each cell.

Recurring Economic Cost Development
Recurring costs from the volume sensitive and volume insensitive recurring cost development processes, recurring direct expenses from the recurring Labor Expense Development process, and other expenses from the input sheet "Additives" flow to the Recurring Economic Cost Development process. All costs

and expenses are summed to a total cost. This cost is then multiplied by Gross Receipts Tax and Common Cost factors to obtain the volume sensitive and volume insensitive recurring costs. These two costs are summed to produce economic costs.

All, some, or none of the previously described recurring cost development sheets will be included with a cost element, depending on their applicability.

BellSouth Cost Calculator Nonrecurring Cost Development

Nonrecurring Cost Development
Installation and disconnect work times, by work function and JFC or Job Grade, are brought from the input sheet, Nonrecurring Labor, to the nonrecurring cost development process. The nonrecurring cost development process produces three different types of nonrecurring cost structures. The first structure is for a single nonrecurring cost, the second is for costs that are first and additional, and the third is for costs that are initial and subsequent. Only one of these three structures is developed for a cost element. The cost development methodology is the same for all three structures.

The BellSouth Cost Calculator calculates the disconnect factor, used to develop the present value of a labor cost that will take place in the future. The calculator develops this factor by first locating the factor associated with the study midpoint date in the working database. The end-point date is then determined by adding the cost element life, in months, to the midpoint date. The factor associated with this date is then divided by the midpoint factor. If there is no cost element life indicated (i.e., value equals zero), the disconnect factor is one. If the disconnect cost is to be collected at the time of disconnect, a future value is calculated and the disconnect cost is not converted to a present value.

To develop the nonrecurring cost, the appropriate labor rate for the JFC or Job Grade is applied to the installation and disconnect work times for each function to produce the install cost and the disconnect cost. The disconnect cost also has the disconnect factor applied. The costs then flow to the appropriate summary process. All calculations are detailed above each cell.

Nonrecurring Economic Cost Development
The nonrecurring installation and disconnect costs from the Nonrecurring Cost Development process, and other expenses from the input sheet "Additives" are brought to the installation cost development and the disconnect cost development processes where costs and expenses are summed to a total cost. These costs are then multiplied by Gross Receipts Tax and Common Cost

factors to produce the nonrecurring economic costs for installation and disconnect.

The previously described nonrecurring cost development reports will not be included with a cost element for which nonrecurring costs are not applicable.

2. Capital Cost Calculator

The Capital Cost Calculator calculates the three annual capital cost factors - depreciation, cost of money and income tax for each class of physical plant. Depreciation (book) is a function of the Gompertz-Makeham survival curve for the respective classes of plant, and is defined in the calculator by the c, G and S parameters. Cost of Money is the return on investment needed to satisfy both the debt and equity investors in the enterprise. Income tax calculations are a function of the return on equity (that portion of the Cost of Money not directed toward debt retirement) and debt service requirements.

User adjustable inputs to the calculator include financial data, tax data, tax depreciation information, and book depreciation data. The calculator also allows the user to input the Gompertz-Makeham curve shapes, the lives, and the future net salvage (FNS) of each plant account.

Survival data for each class of plant is based on the Gompertz-Makeham survival curve defined by the c, G, and S parameters describing the attrition of plant over it's useful life. The curve is adjusted to match the respective economic lives. The G-M survival curves are the standard approach used in the telecom industry and approved by most state and federal regulatory bodies. While the curve represents the pattern of retirements, the area under the curve represents the average life of the plant. Thus, as the user adjusts the average life, the area under the curve must also be adjusted to match the input average life.

The calculator contains survival data for both beginning of year (BOY) convention and end of year (EOY) convention. Yearly retirements are obtained by subtracting current year survival proportions from previous year survival proportions.

In calculating annual depreciation amounts, the Calculator methodology uses the standard Midyear Equal Life Group (ELG) approach. Since midyear convention is used, the first year values recognize that capital is only on the books for ½ of a year.

Average Capital per year is used as the basis against which Cost of Money calculations are made. Beginning of Year Capital and End of Year Capital are averaged together to develop the Average Capital per year.

The EOY capital balance is calculated as:

(BOY Capital) - (Book Depreciation) - (Deferred Tax)

This balance recognizes the deferred tax balance that is available to the company from "normalizing" its deferred taxes. However, this balance is assumed to have a 0% rate of return (therefore, it can be removed from the capital amount the company has invested).

Annual Deferred Tax is calculated as:

(Tax Deprecation) - (Book Depreciation) • (Combined Income Tax Rate)

Data inputs for income tax data calculations include a MACRS (Modified Accelerated Cost Recovery System) table. This table provides the yearly tax depreciation rates for each Recovery Class as specified by MACRS tax depreciation rules.

Grossed-up Income Tax is calculated as:

(Return on Equity * Combined Income Tax Rate) /
(1 - the Combined Income Tax Rate).

This formula recognizes that most states do not allow Federal Income Taxes to be deducted from income.

Tax depreciation is included in Federal Income Tax calculations and serves to reduce the effective tax on the Return on Equity portion of Cost of Money.

When the initial operations of the Calculator are completed, the total capital cost factors for each year that plant survives is determined. In order to develop a set of levelized annual cost factors, two steps are necessary. First, the net present value (NPV) of the annual factor streams is calculated using a discount rate equal to the Cost of Money. Second, the NPV is spread over the economic life of the plant account using a midyear convention to arrive at a set of levelized annual cost factors for book depreciation, cost of money, and combined income taxes. A detailed description of the model and the associated EXCEL spreadsheet is included in Appendix A.

3. DS1 Channelization Price Calculator

The DS1 Channelization Price Calculator develops the material prices of D4 Channel Banks and their associated common plug-ins.

The price calculator applies TPI (Telephone Plant Indexes) factors to material prices, if needed, to bring material prices to current levels. Prices are divided by the capacity of the circuit being studied (DS0, DS1, etc.). All material except deferrable plug-ins have an 85% utilization factor applied to them. Deferrable plug-ins are dedicated to each circuit and thus have a 100% utilization. This produces a utilized material price at a specified capacity or transmission level.

An electronic copy of this Price Calculator is included on the CD under the Models sub-directory.

Illustrative Example of the DS1 Channelization Price Calculator: DSX-1 Panel at DS0 Level

DSX-1 Panel material price	$12,600
Number of DS1 ports available	/ 840
Material price per DS1 per port	$ 15.00
Number of DS0 ports available per DS1	/ 24
Material price per DS0 per port	$ .625
Utilization Factor	/ .85
Utilized Material Price per DS0 Port	$ .735

An electronic copy of this Price Calculator is included on the CD under the Documentation directory under Models.

4. Main Distributing Frame Material Price Study

The Main Distributing Frame and associated equipment are the backbone for equipment mounts in the Central Office (C.O.). Vendor equipment (Lucent, Nortel, etc.) interfaces with the MDF in order to connect a subscriber to a line, a trunk, or a carrier.

The MDF fundamental study assumes the basic configuration is a metal frame, measuring eleven feet by six feet, with mounting blocks running vertically and horizontally. Each analog line requires one MDF and protector termination. Digital lines interface with the switch via T-1 links, with each line requiring two MDF and protector terminations. The MDF fundamental study develops MDF material prices for the following local loops:

2-wire or 4-wire copper, nonswitched
2-wire or 4-wire copper, switched
2-wire or 4-wire fiber, nonswitched (Universal DLC)
2-wire or 4-wire fiber, switched (integrated DLC)
ISDN
4-wire DS1 Digital copper, nonswitched
4-wire DS1 Digital copper, switched
2-wire or 4-wire Analog Line Port
Copper Loop/Port Combination

MDF Utilized Material Price Study Assumptions:

1. The forward-looking MDF configuration is 11' - 6" double-sided conventional framework.

2. Connectors (310 and 410 types) and Connecting Blocks (89 type) will be ordered through the BellSouth Turf Vendor Central Office Ordering Process.

3. Protectors and Continuity Plugs will be ordered through GTE Supply.

4. Projected Actual Fill for all MDF associated equipment, except for protectors and continuity plugs, is 85%. Projected actual fill for protectors and continuity plugs is 100%.

5. All loops entering the Central Office on copper facilities terminate at the MDF for protection and cross connection to other equipment.

6. Nonswitched UNE loops entering the Central Office on fiber optic facilities (Universal DLC) will have a nonprotected termination at the MDF for testing and cross connection to other equipment.

7. MDF costs will be developed on a "per-pair terminated" basis. Loops are terminated in connectors/protectors on the vertical side of the MDF. Office equipment, such as, the switch or connections to interoffice facilities, is terminated at connecting blocks on the horizontal side of the MDF.

8. The MDF framework, connecting block, tie-cable, cable rack and associated equipment to connect the CLEC space to the MDF is provided in the Collocation UNE elements.

9. The cost of all necessary mounting brackets and other miscellaneous hardware is included in the material cost of the appropriate item, e.g., framework, connector, etc.

10. The average stub length for 310-type connectors terminating copper loops is 100 feet. The 410-type connector associated with fiber loops has no stub.

11. The cable between the MDF and the C.O. switch and the terminal block to terminate this cable at the MDF is included in the Line Port cost.

12. All costs associated with running the cross connect jumper(s) between Connectors and Connecting Blocks are included in the work activities associated with provisioning a UNE and are recovered as nonrecurring costs.

An electronic copy of this Price Calculator is included on the CD under the Documentation directory under Models.

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SECTION 5
INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

BELLSOUTH REGION TELEPHONE PLANT INDEXES

The BellSouth Region Telephone Plant Indices (TPIs) are used in cost studies to estimate the change in the material price and/or installed investment from one year to a future year. The TPIs are price indices that measure the relative changes in the prices BellSouth pays for the construction of telephone plant between specific periods of time. A TPI is an average of prices, or of price relatives at specific points or periods of time, constructed for a specific purpose. It should also be noted that TPI forecasts are forecasts of price changes of equipment that is being installed. They are not intended to be forecasts of technology changes or productivity improvements.

Joel Popkin and Company, as BellSouth consultants, assists BellSouth's Network Department with the development of the TPIs. In general, the methodology uses econometric techniques to establish a mathematical relationship between the historical movement in each of the labor and materials components that make up the TPIs and the historical movement in the explanatory variables. The explanatory variables are usually aggregate measures of the U.S. economy, such as price deflators from the national income and product accounts, the U.S. union wage rate, copper prices and other macroeconomic variables. What these econometric techniques provide is a systematic, quantifiable statement of what has happened in the past. Use of those relationships implicitly makes the assumption that history will more or less repeat itself. It is important to re-estimate the relationships as new index values are added each year.

A summary of Labor TPIs and TPIs by account is included in Appendix B.

INVESTMENT INFLATION FACTORS

Over the life of an investment, inflation causes fluctuations in the forward-looking investment amount. Thus, the investment amount should be levelized over the time period in which the study results will be used. Investment inflation factors by account are used to trend plant investment in base year dollars to a levelized amount that is valid for a three to five year period. The investment inflation factors are the cumulative average of three years' projected inflation rates from the BellSouth Region TPIs. When the base year investment is multiplied by the investment inflation loading, the result is a forward-looking investment representative for a three to five year period.

A worksheet showing the development of the levelized Investment Inflation Factors used in these studies is included in Appendix B.

IN-PLANT LOADING FACTORS

The In-Plant Loading factors add engineering and installation labor and miscellaneous equipment to the material price and/or vendor installed price, that is, the In-Plant Loading converts the material price to an installed investment. The installed investment is the dollar amount that is recorded in the capital accounts. In-Plant loadings are account specific. There are two types of in-plant loadings used in these studies: 1) Material Loading, 2) Telco Loading. The Material Loading is applied to a material price and the Telco Loading to the vendor-installed investment. The data sources are the 1998 State and Local Sales Taxes, Resource Tracking Analysis and Planning (RTAP) System, and Special Report/File 542 - 1998 Investments.

A summary of the In-Plant Loading factors used in these studies and worksheets showing their development are included in Appendix B.

SUPPORTING EQUIPMENT AND POWER LOADING FACTORS

Supporting Equipment and Power Loading factors are used to calculate the incremental investment for such items as power equipment (rectifiers, power supplies, batteries, some fuse panels and emergency power generators), distributing frames, ladders, tools, alarms and test sets, required to support an additional dollar of central office (CO) investment. The Supporting Equipment and Power Loadings are developed from investment data obtained from a 1998 Central Office Monthly Allocation Process (COMAP) extract of power and supporting equipment.

A summary worksheet showing the development of Supporting Equipment and Power Loadings is included in Appendix B.

LAND AND BUILDING LOADINGS

Land and Building Loadings are translators used to determine the amount of investment in land and building associated with central office investment. Ratios are developed between land investments and central office equipment investments and between building (central office) investments and central office equipment investments.

In order to develop these ratios, regulated investment dollars are taken from extracts from BellSouth financial systems for the years ending 1997 and 1998.

The EOY investments are averaged to develop an average investment level for 1998. The projected view of 1999 through 2002, from Network, is based on plant additions less retirements and is added to the 1998 EOY investment levels. Current Cost Factors are applied to average 1998 investment levels only. Projected net additions for 1999 through 2002 are added to represent the current forward looking period (2000 – 2002).

The 2000 through 2002 land and building projected investments are added, multiplied by the percent of land and building associated with central office equipment, and each is respectively divided by the three years of total central office equipment to derive the loading factors.

Worksheets showing the development of Land and Building Loading factors used in these studies are included in Appendix B.

POLE AND CONDUIT LOADINGS

Pole and conduit loadings are translators used to determine the amount of investment in poles and conduit associated with aerial and underground cable investment.

The pole loading is developed by comparing the investment in poles to the investment in aerial cable. A ratio is then developed that allows each dollar of aerial cable investment to include a fraction of the pole investment. The conduit loading is developed by comparing the investment in conduit to the investment in underground cable. A ratio is then developed that allows each dollar of underground cable investment to include a fraction of the conduit investment.

The regulated investment dollars used in developing these factors are taken from extracts from BellSouth financial systems for the years ending 1997 and 1998. The projected view of 1999 through 2002 received from Network is based on plant additions less retirements and is added to the 1998 EOY investment levels. Current Cost Factors are applied to 1998 average investment levels only. Projected net additions for 1999 through 2002 are added to represent the current forward looking period. The pole loading is developed by dividing three years cumulative pole investment by three years cumulative aerial cable investment. The conduit loading is developed by dividing three years cumulative conduit investment by three years cumulative underground cable investment.

A worksheet showing the Pole and Conduit Loadings development is included in Appendix B.

RTU FEE LOADING FACTOR (560C)

This investment loading factor computes the RTU fee investment for Central Office switching equipment (Field Reporting Code 377C). The RTU fee is classified as Account Code 2690 - 560C Intangible Software RTU Investment - Network Switching.

The loading factor represents the ratio of RTU fee capitalized investment to switch investment over the study period. The general procedure for developing the loading factor is as follows:

1. Determine from Company budget forecasts the expected dollar amount for network additions in 377C plant over the study period (2000-2002).

2. Determine from Company budget forecasts the expected dollar amount for network additions in 560C software over the study period (2000-2002).

3. Divide (2) by (1) to compute the RTU fee loading factor.

The RTU loading factor is applied to 377C material, when required, to determine the associated the capitalized RTU 560C material amount. This 560C material is then included as input into the BellSouth Cost Calculator.

A worksheet showing the RTU Fee Loading factor development is included in Appendix B.

ANNUAL COST FACTORS

GENERAL

Annual cost factors are translators used to determine the amount of recurring cost for one year associated with acquiring and using a particular investment. Annual cost factors were developed for each category of plant investment. When the dollar amount for a particular investment is multiplied by the annual cost factor for that particular category of plant investment, the product reflects the annual recurring cost incurred by BellSouth with respect to that particular investment. There are basically two types of cost associated with investment: capital-related costs and operating-related costs .

The initial purchase price of plant equipment and any installation costs are paid with a combination of investor supplied funds and retained earnings. The

investors who provide the "loan" may be either bondholders or stockholders. The plant placed must be able to generate enough revenues to cover capital costs associated with its placement and usage. Capital-related costs consist of three major categories: depreciation, cost of money, and income tax. The capital-related cost factors are developed using a PC based spreadsheet, the Capital Cost Calculator, which uses various financial data and plant investment characteristics to compute the annual capital costs by category of plant.

Plant investments must also be maintained to provide for continuing operations. Ordinary repairs and maintenance, as well as rearrangements and changes, are necessary costs for all categories of plant (except land) in order to provide proper service. These maintenance costs, as well as ad valorem taxes and other taxes must be covered by the revenues received from the use of the asset. The operating-related cost factors are developed using various spreadsheets, which basically compute the annual operating-related costs by category of plant, and divide that amount by the investment in that category of plant.

CAPITAL-RELATED COSTS

DEPRECIATION (book) - the allocation of the initial plant investment over the years of service provided by the plant. Depreciation is determined by analysis of survivor curve data. Survivor curves represent the survival pattern of plant investment. Specifically, for any year, depreciation is defined as the difference in the plant surviving at the beginning of the year less the amount of that same plant surviving at the end of the year. Survivor curve shapes for different classes of plant are determined by the respective Gompertz-Makeham c, G, and S parameters.

COST OF MONEY - the annual cost to the firm of the debt and equity on capital invested in the business. This annual cost is determined in the financial market as it represents the investors' expected return on their investment.

INCOME TAX - the composite of income taxes paid to the Federal and State governments based on the taxable net income of the company.

OPERATING-RELATED COSTS

PLANT SPECIFIC EXPENSE - the expense required to keep existing telephone plant, circuits, and service up to standards, as well as rents paid for facilities. This includes trouble clearing, rearrangements, and replacing defective elements.

AD VALOREM AND OTHER TAX - taxes levied by city and county governments based on the assessed value of property. This includes property taxes, capital stock taxes, and other taxes.

FACTOR DEVELOPMENT - CAPITAL COST

Depreciation is the allocation of the initial plant investment over the years of service provided by the plant. The method employed in these studies employs survivor curves as defined by the Gompertz-Makeham c, G, S parameters. The general form of the survivor curves, in log form, is:

$$P_x = P_0 + xS + G\left[\left(c^x\right) - 1\right],$$

where:

P_x = Proportion surviving at age x,
P_0 = Proportion surviving at age zero, and
x = Age.

The curve shape parameters describe a particular curve shape, along with an associated life. In practice, the parameters are determined by actuarial-type studies of classes of telephone plant.

The curves for specific classes of plant are rendered as tables of proportions surviving versus years in service. Depreciation ratios for specific years of service are determined by subtracting proportions surviving at the beginning and end of the years in question. Where the half-year convention is employed, proportions surviving may be expressed at intervals such as 0.5, 1.5, 2.5,etc. years.

Cost of Money is the amount of money that must be paid to investors for the use of investor-supplied funds. This amount to be paid investors is the annual cost to the company of the debt and equity capital invested in the company. Cost of money is determined in part by the financial market and, as it represents the investors' expected return on their investment, may differ considerably from the actual earnings a company generates. The overall cost of money rate provided by BellSouth Treasury depends on the cost of equity financing, the cost of debt financing, and the debt to equity ratio of the capital structure of the company. The overall cost of money rate is equivalent to the rate of return currently authorized by the Federal Communications Commission (FCC) and the rate of return referred to by the FCC in its First Report and Order, CC Docket 96-98.

Income tax expense is the federal and state taxes levied on "taxable income." For income tax purposes, what is considered gross income and what expenses are deductible are defined by laws and codes. The income tax factor is developed to reflect the income tax in two situations: 1) payment of dividends to

stockholders, which are neither tax deductions nor accounting expenses; and 2) and the existence of a tax-timing difference between book depreciation and tax depreciation. While interest to bondholders is book expense and deductible for income tax purposes, the federal government and most state governments levy a tax on the revenues, which are earned to compensate stockholders for the use of their money. A company must pay income taxes on the equity portion of return, but the debt portion is tax exempt. The timing differences for depreciation are the result of both different depreciable lives and different depreciation methods. In addition, the basis for tax depreciation may be different from the basis for accounting depreciation.

FACTOR DEVELOPMENT - OPERATING RELATED

PLANT SPECIFIC EXPENSE

The plant specific expense factor, which includes the cost of material used and direct labor, is a ratio that reflects the relationship between the expenses for plant category and the respective investment. The factor also includes maintenance-type expenses for existing plant that cannot be directly assigned to a given plant category, such as, transmission power. Certain expenses, such as service order activity, have been excluded from the appropriate categories. These costs are excluded because: 1) they should be separately identified for each service, or 2) they should be included in nonrecurring cost studies. The maintenance expenses incorporated in the Plant Specific Expense Factors include those associated with the following types of operations:

1. Inspecting and reporting on the condition of plant investment to determine the need for repairs, replacements, rearrangements and changes

2. Performing routine work to prevent trouble

3. Replacing items of plant other than retirement units

4. Rearranging and changing the location of plant not retired

5. Repairing material for reuse

6. Restoring the condition of plant damaged by storms, floods, fire and other casualties (other than the cost of replacing retirement units)

7. Inspecting after repairs have been made

8. Salaries, wages and expense associated with plant craft and work reporting engineers, as well as their immediate supervision and office support.

The plant specific expense factors are based on three years of projected expense and investment data. The 1998 expenses used in the study were pulled from the Cost Separations System (CSS). Rent expense is excluded from building expense; net rent (rent revenue less rent expense) is included in pole and conduit expenses. Projected view data was obtained from the Finance Regulatory Accounting Group for the 1999 through 2000 expenses and spread based on actual expenses. Service order-related expenses were excluded from the study because such expenses are recovered in a direct manner rather than through the use of a factor. The 2000 through 2002 projected expense amounts are added together and averaged to represent the average annual expenses for the projected period.

The investment dollars are derived from actual EOY 1997 and 1998 levels plus 1999 through 2002 projected net additions from the Network Budgets Group. The investment projections are based on plant additions less retirements added to the cumulative historical year. The actual EOY 1997 and EOY 1998 dollars were extracted from BellSouth financial systems. EOY 1997 and EOY 1998 investments are averaged to develop average 1998 amounts, current cost factors are applied, and then 1999 through 2002 net additions are added together to represent the projected period. The expenses are then divided by the investments, resulting in the unloaded plant specific expense factors. Power expense loadings are then added to the factors for central office equipment investment. These plant specific expense factor calculations result in a factor for each category of plant representative of the average expense per investment expected in the future for each plant category.

Worksheets showing the development of the Plant Specific Expense Factors used in these studies are included in Appendix B.

AD VALOREM AND OTHER TAXES

The ad valorem and other tax factor is an effective tax factor furnished by the BellSouth Tax Department. The BellSouth Tax Department develops the factor by calculating the ratio of certain tax expenses to the telephone plant in service, as follows:

$$\frac{\text{Accounts } 7240.1000 + 7240.3000 + 7240.9000}{\textit{Telephone Plant In Service}}$$

Account 7240.1000 includes taxes levied upon the assessed value of property.

Account 7240.3000 includes taxes levied upon the value or number of shares of outstanding capital stock, upon invested capital, upon rate of dividends paid, etc.

Account 7240.9000 includes other nonincome, nonrevenue taxes such as municipal license taxes, state privilege taxes, state self-insurer's tax, etc.

A summary of ad valorem tax factors used in these studies is included in Appendix B.

GROSS RECEIPTS TAX FACTOR

Some states and municipalities tax the revenues that a company receives from services provided within the state/municipality. The taxes may be designed to fund such things as PSC fees, franchise taxes, license taxes, or other similar items, but because the taxes are levied on the basis of revenues, they are commonly referred to as a gross receipts tax. Unlike some taxes that are billed to the customer and flowed through to the taxing authority, a gross receipts tax is a cost of doing business to BellSouth.

The BellSouth Tax Department provides the effective tax rate at which BellSouth is charged by the taxing authority and that rate is "grossed up" to reflect the following formula:

$$\frac{\text{GROSS RECEIPTS TAX RATE}}{(1 - \text{GROSS RECEIPTS TAX RATE})}$$

A summary of gross receipts tax factors used in these studies is included in Appendix B.

DISCONNECT FACTORS

Disconnect factors are translators used to determine the costs associated with disconnecting a service. These factors are developed because there is a difference in time between when a service is disconnected and when BellSouth recovers this disconnect cost. Disconnect costs are typically included in the one-time up front service establishment charges. The customer is billed now for work that will be done in the future. However, the user has the option of developing disconnect costs under the assumption that these charges will apply at the time of disconnect.

The calculation of the disconnect factors is based on the following data: the expected life of the service being studied and an interest rate that is comparable to the highest rate BellSouth is required to pay its customers for customer deposit payments held by BellSouth. The disconnect factor inflates the labor cost to the period of the future disconnect and discounts these costs to the present. Disconnect factors are calculated by month for twelve years for the company on a regional basis. The data sources for these factors are the 1998 forecasted labor inflation rates from the BellSouth Region TPIs and a discount rate based on simple interest calculations.

If disconnect costs are to be collected at the time of disconnect, the factor reflects inflation only. The costs are not discounted to the present.

Worksheets that develop the Disconnect Factors used in these studies are included in Appendix B.

LABOR RATES

Labor rates for specific work groups are developed annually based on extracts of previous year's data from the Financial Front End System. This extract collects labor expense and hours and a PC application processes the information to produce labor rates. During processing, the actual costs for a given work group are accumulated by expenditure type (e.g., direct labor productive, premium, other employee, etc.). These actual costs are divided by the actual hours (classified productive hours for plant and engineering work groups and total productive hours for cost groups) reported by work group to determine the basic rates. The base year of labor rate data collection was the 1998 calendar year. A labor inflation factor is developed from the BellSouth Region TPIs and is applied to inflate these rates to the study period 2000-2002. The actual labor rate inflation development process can be seen under the inflation factor tab of the Labor Rate file in Appendix B.

LABOR RATE COMPONENTS:
The following are various cost components that make up labor rates:

DIRECT SALARIES AND WAGES

1. Direct Labor - Productive (RESOURCE TYPE CODE (RTC) 111, 121)
   Represents the wage and salary costs associated with work reporting employees for regularly scheduled time and overtime spent performing productive work. Also includes the costs of salaries paid to management employees when performing productive work. Classified and unclassified productive hours are used as the basis for Direct Labor Costs.

2. Direct Labor - Premium (RTC 122)
   Represents the wage and salary costs associated with premium hours paid for hours worked beyond the normally scheduled work period.

3. Direct Labor - Other Employee (RTC 199, 19B, 19C, 193)
   Covers the costs associated with the periodic incentive compensation payments made to management employees based on corporate service and financial performance, the annual bonus paid to non-management employees, all costs associated with commissions paid to employees, cash awards paid for any approved program, etc.

4. Direct Labor - Annual Paid Absence (RTC 132, 19E)
   Identifies the cost of payments to be made over the year to occupational work reporting employees for accrued costs of holidays, vacations, and excused days.

5. Direct Administration (RTC 111, 121, 122, 199, 19B, 19C, 19E, 193, 132)
   Identifies the costs of salaries paid during the month to the first level of supervision responsible for supervising occupational work reporting employees, and salaries and wages paid to employees and immediate supervisors who perform basic office services for occupational work reporting employees. Also included are the wages paid to occupational work reporting employees loaned to perform supervisory or clerical functions.

6. Other Tools - Salaries (RTC CQR)
   Identifies the salary portion of the distributed costs associated with tools.

7. Motor Vehicles - Salaries (RTC CQM)
   Identifies the salary portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operations expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

OTHER DIRECT

1. Direct Labor - Other Costs (Various RTCs)
   Identifies the costs incurred for office, traveling and other costs of employees whose wage and salary costs are direct labor.

2. Other Tools - Benefits (RTC CQS)
   Identifies the distributed benefits costs associated with tools.

3. Other Tools - Rents (RTC CQK)
   Identifies the distributed rent costs associated with tools.

4. Other Tools - Other (RTC CQL)
   Identifies the distributed other expense costs associated with tools.

5. Motor Vehicles - Benefits (RTC CQN)
   Identifies the benefits portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operations expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

6. Motor Vehicle - Rents (RTC CQP)
   Identifies the rents portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operation expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

7. Motor Vehicle - Other (RTC CQQ)
   Identifies the other costs portion of the plant motor vehicle expenses distributed to construction, removal or plant specific operations expense accounts based on the classified productive hours of the labor groups using the motor vehicles.

8. Benefits (RTC KB1)
   Identifies amounts for the payroll related benefits and taxes. These costs include pension accruals; company matching portion of savings plan; dental, medical, and group insurance plan reimbursements; and company portion of social security and unemployment payroll taxes.

TOTAL PRODUCTIVE HOURS

1. Classified Productive Hours
   Hours of work reporting employees which are reported to final accounting classifications.

2. Unclassified Productive Hours
   The working hours of plant work reporters devoted to activities of such a general nature as to not be assignable to specific accounting classifications. Unclassified activities include: attending conferences or meetings (including travel time) which are general in nature; attending first aid classes or safety meetings; paid time spent on union activities; paid time spent on quality of work life activities; time spent in a classroom (including travel time) for general or job specific training; and other unclassified activities such as attending assessment centers.

Labor Rate worksheets are included in Appendix B.

SHARED FACTORS AND COMMON FACTOR DEVELOPMENT AND APPLICATION

Process Overview
In order to develop factors that reflect a distribution of a) shared costs to distinct network elements or facilities and b) common costs that span the activities of the business, BellSouth designed a process which complies with FCC pronouncements. This process employs cost assignments, where possible, based on the cost attribution principles underlying the Cost Allocation Manual (CAM) approved by the FCC. These principles provide a structural "cost causative" basis for assigning costs to network related plant or to non-network related groupings (Common, Non-Recurring Costs, Retail, etc.).

Base Period Data
Base period cost profile data for regulated 1998 expenses and 1998 average investment amounts were extracted from BellSouth's financial records. In addition, the related salary and wage amounts were retrieved for use in the apportionment processes. The data was retrieved by Account, Field Reporting Code/Subsidiary Record Category (FRC/SRC), Cost Pool, Cost Sub-Pool, Expense Matrix Indicator (EMI), and Account Type as appropriate.

STEP 1. Development of 2000-2002 Average Annual Costs
Projection factors were applied to the base period data at a cost pool/sub-pool level to develop average annual forward-looking costs for the 2000-2002 period. As a first step in this process, the 1998 expenses and salary and wage amounts were multiplied by the 2000-2002 Expense/Salary & Wage Development Factors to develop the related average annual expenses and salary and wage amounts for the 2000-2002 period. Next, 1998 averaged investment amounts were multiplied by the 2000-2002 Investment Development Factors to develop the average 2000-2002 investment levels. Next, the 2000-2002 average investment levels were converted to average annual capital related costs by applying the Capital Cost and Ad Valorem Factors. The final process in this step was the identification and segregation of all nonrecurring costs to prevent them from being impacted by any recurring costs.

After the expenses and investments have been converted into forward-looking costs in Step 1, the next steps assigned these costs to cost objectives such as wholesale network investments, retail, nonrecurring, etc.

STEP 2. Reclassification
The next operation identified those accounts where there were direct, cost causative relationships between expense accounts and related investment accounts, and performed a reclassification process to combine the expenses and capital costs of the related accounts. As an example, Account 6112 Motor Vehicle maintenance expense was combined with Account 2112 Motor Vehicle capital related costs. Most of the plant specific expenses have a direct, cost-causative relationship with either a general support or network investment account.

STEP 3. Primary Attribution of Cost
After the above-referenced reclassifications, the remaining expenses and support asset costs (Accounts 61XX, 65XX, 66XX, 67XX, 1220, 21XX, and 26XX) were assigned by applying factors based on the cost attribution principles underlying the CAM. Apportionment factors were developed on a cost pool/sub-pool basis reflecting salary and wage relationships, investment relationships, or expense relationships.

STEP 4. Secondary Reclassification
Following the first iteration of cost assignments, a reclassification of assigned costs was made to associate costs which, by their nature, were assignable to related accounts or to final non-network related groupings.
During the first iteration of cost assignments, some apportionments were made to support type accounts; and therefore, a second iteration of cost assignment was required to appropriately distribute support type costs on a cost causative basis. The second iteration of cost assignment began in this step and included only computer costs (Account 6124).

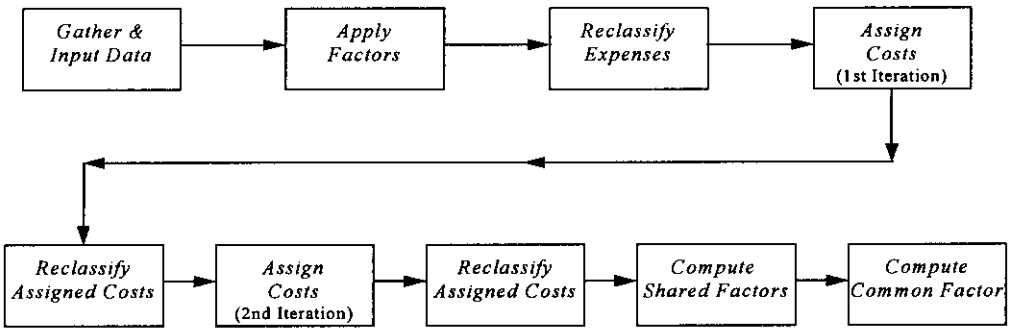
STEP 5. Secondary Attribution of Costs
This step continued the distribution of support type costs referred to in Step 4 above. It included the assignment of provisioning expenses (Account 6512), and network operations expenses (Accounts 653X).

STEP 6. Reclassification and Factors Development
After the second iteration of cost assignment, a final reclassification was required to associate the remaining costs with either a network related account or with a nonnetwork related grouping. The cost assignments that were associated with network related accounts were then divided by the related 2000-2002 investment amounts in order to develop the shared factors

In the steps of the process outlined above, some costs, though common in nature, have wholesale/retail attributions that facilitate an assignment to the wholesale or retail category. These costs are referred to as directly assigned common costs. Other common costs, having no reasonable cost causation basis, were allocated to the wholesale and retail categories on the basis of the relationship between total wholesale costs and total retail costs.

Total wholesale common costs were developed by summing the directly assigned wholesale common costs and the allocated wholesale common costs. The common cost factor was developed by dividing the total wholesale common costs by the total wholesale costs excluding the common portion (Nonrecurring costs were included with the total wholesale costs to form the denominator).

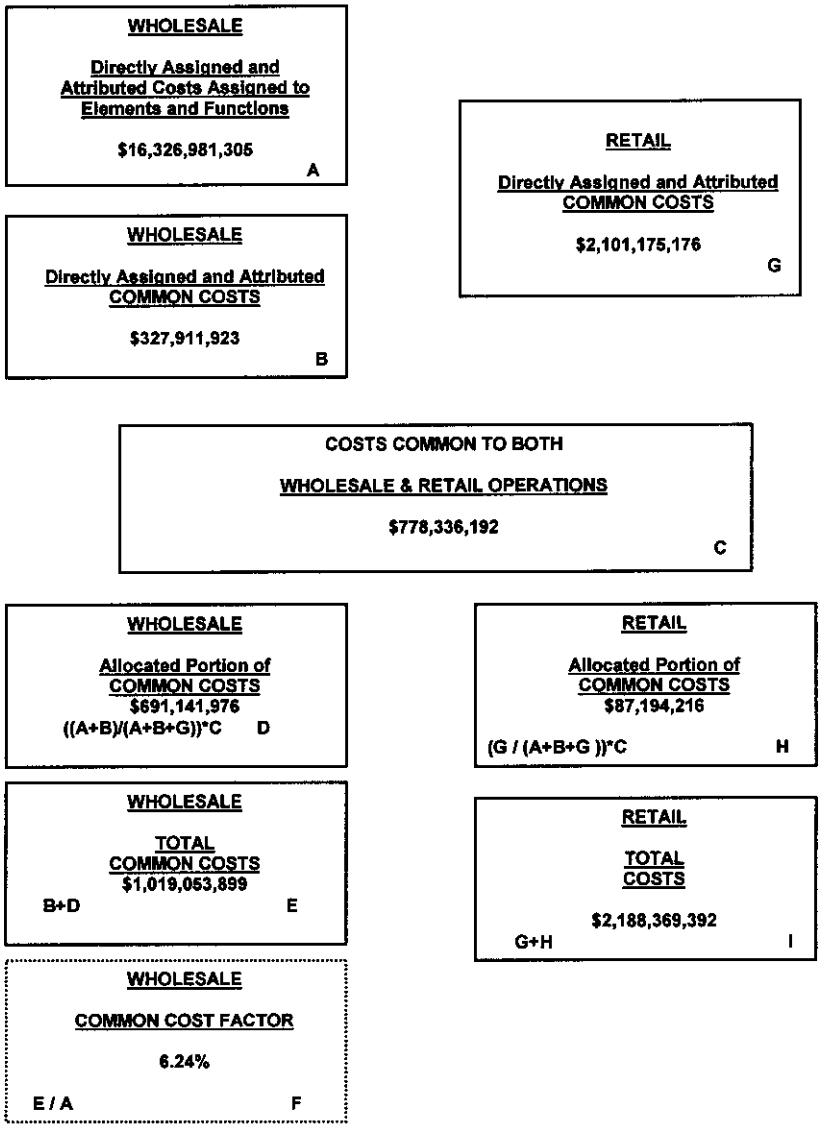
Flow Diagram of the Calculation of the Shared Cost Factors and the Common Cost Factor



FLORIDA DOCKET NO. 960786-TL
SECTION 5
INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

CALCULATION OF COMMON COST FACTOR

Note: The amounts and percentages on this diagram are illustrative in nature and may or may not reflect the amounts or results incorporated in this filing.



FLORIDA DOCKET NO. 960786-TL
SECTION 5
INPUTS – DESCRIPTION OF LOADINGS AND FACTORS

Inputs To The Application

The inputs to the Shared and Common Cost Application consist of the following:

1998 regulated expenses
1998 averaged regulated investment amounts
1998 regulated salary and wage amounts
2000-2002 Expense/S&W Development Factors
Capital Cost Factors
Ad Valorem Factors
2000-2002 Investment Development Factors
Service Order Proportion Factors
Wholesale/Retail Factors for A/C 661X Marketing
Wholesale/Retail Factors for A/C 6623 Customer Services

The 1998 expense and investment data provides a foundation or template to drive the 2000-2002 projected expenses and investment to appropriate cost pool/sub pool assignments. The salary and wage (S&W) amounts are used in the apportionment processes performed by the application. The 1998 salary and wage amounts were input into the application and were utilized in appropriate salary and wage attribution bases for assigning attributable costs.

The 2000-2002 Expense/S&W Development factors that were input to the shared and common application are a reflection of the relationships of projected average annual expense for the 2000-2002 period to the actual 1998 expense amounts on an account level basis. Estimates of expenses for each of the three years in the 2000-2002 period were developed to reflect BellSouth's projected operations. These expenses were averaged and utilized in the 2000-2002 Expense/S&W factors described above.

The 2000-2002 Investment Development factors were calculated by restating the 1998 investment based on historical cost to investment based on current prices. In addition, any planned additions and retirements were considered in arriving at an investment reflecting the forward-looking costs required by the FCC. Once the investment was calculated for each year, it was averaged for the period 2000-2002. The 2000-2002 averaged investment by account was divided by the 1998 investment by account to produce the 2000-2002 Investment Development factors.

Capital Cost and Ad Valorem Factors include calculations for Depreciation, Cost of Money, Income Taxes, and Ad Valorem Taxes. The Capital Cost Calculator computes the Capital Cost factors used in the Shared and Common Cost Application. For details concerning the calculations of these factors, see the Capital Cost Calculator (Section 4) and Ad Valorem Costs (Section 5).

The Service Order Proportion factors are used to derive the non-recurring costs associated with Central Office Equipment Expenses (62XX accounts), Terminal Equipment Expenses (63XX accounts), and Cable and Wire Expenses (64XX accounts). Actual service order work hours by network related plant were retrieved and a relationship to total work hours was developed for each type of plant. The hours were extracted on a study basis. For details concerning the calculations, see Plant Specific Costs (Section 5).

The Wholesale/Retail Factors relating to Accounts 6611, 6612, 6613, and 6623 reflected an analysis of each account by cost pool/sub pool to determine the nature of the expenses and how they would be reflected in a wholesale versus retail company. The study was often carried out at a Work ID level. Based on the analysis, an assignment to wholesale or retail was specified for each cost pool/sub pool. At the conclusion of the analysis, the total wholesale portion was divided by the account total to arrive at a wholesale percentage. A similar calculation was done for determining the retail percentage.

BellSouth Shared and Common Cost Application

The BellSouth Shared and Common Cost Application is a menu driven application used in calculating the Common Cost Factor and the Shared Cost Factors. Users are guided through the process by selecting from easy to understand choices.

The user interface for the Shared and Common Cost Application allows for editing inputs, viewing reports of the outputs, examining the underlying methodology of the Application, and saving and loading edits as scenarios. The Application provides help screens and descriptions of processes to guide the user in understanding the process, creating new scenarios and reviewing the results/outputs of the process. The application processes in either of two modes. By selecting SETTINGS on the user interface main screen, the user may process the application in steps or all at once. The Batch mode processes the data without allowing the user to view results at various stages of the process. The Interactive mode allows the user to access data at various stages of the process and provides a description of the step being performed.

Worksheets supporting the development of the Shared and Common Cost Factors used in these studies are included in Appendix B.

FLORIDA DOCKET NO. 960786-TL
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

INTRODUCTION

This section contains descriptions of cost elements and an overview of the study process for each category of elements studied by BellSouth.

The following is a listing of the unbundled network cost elements provided in this filing package. Each cost element is represented by a designated cost element number that is referenced throughout the studies. Also provided is the file name of the Microsoft Excel spreadsheet in which inputs and workpapers for each element can be found. These input spreadsheets and workpapers are being furnished in electronic format only. The input spreadsheets are contained on the CD-ROM included in Appendix C. They are located under the investment sub-directory listed under each scenario.

Following this listing are narratives for each category of cost elements describing the elements, study technique, and specific study assumptions.

FLORIDA DOCKET NO. 960786-TL
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

		Filename
A.0	**UNBUNDLED LOCAL LOOP**	
H.1	**PHYSICAL COLLOCATION**	
H.1.1	Physical Collocation - Application Cost	Flphycol.xls
H.1.5	Physical Collocation - Cable Installation Cost Per Cable	Flphycol.xls
H.1.6	Physical Collocation - Floor Space, Per Sq. Ft.	Flphycol.xls
H.1.7	Physical Collocation - Cable Support Structure, Per Entrance Cable	Flphycol.xls
H.1.8	Physical Collocation - Power per Fused Amp	Flphycol.xls
H.1.9	Physical Collocation - 2-wire Cross Connects	Flphycol.xls
H.1.10	Physical Collocation - 4-wire Cross Connects	Flphycol.xls
H.1.11	Physical Collocation - DS1 Cross Connects	Flphycol.xls
H.1.12	Physical Collocation - DS3 Cross Connects	Flphycol.xls
H.1.13	Physical Collocation - 2 Wire POT Bay	FlPCpot.xls
H.1.14	Physical Collocation - 4 Wire POT Bay	FlPCpot.xls
H.1.15	Physical Collocation - DS1 POT Bay	FlPCpot.xls
H.1.16	Physical Collocation - DS3 POT Bay	FlPCpot.xls
H.1.17	Physical Collocation - Security Escort - Basic, Per Half Hour	Flphycol.xls
H.1.18	Physical Collocation - Security Escort - Overtime, Per Half Hour	Flphycol.xls
H.1.19	Physical Collocation - Security Escort - Premium, Per Half Hour	Flphycol.xls
H.1.23	Physical Collocation - Welded Wire Cage - First 100 Sq. Ft.	Flphycol.xls
H.1.24	Physical Collocation - Welded Wire Cage - Add'l 50 Sq. Ft.	Flphycol.xls
H.1.31	Physical Collocation - 2-fiber Cross Connect	Flphycol.xls
H.1.32	Physical Collocation - 4-fiber Cross Connect	Flphycol.xls
H.1.33	Physical Collocation - 2-fiber POT Bay	Flphycol.xls
H.1.34	Physical Collocation - 4-fiber POT Bay	Flphycol.xls
H.1.37	Physical Collocation - Security Access System - Security System, per Central Office, Per Square Foot	Flphycol.xls
H.1.38	Physical Collocation - Security Access system - New Access Card Activation, per Card	Flphycol.xls
H.1.39	Physical Collocation - Security Access System - Administrative Charge, Existing Card, per Card	Flphycol.xls
H.1.40	Physical Collocation - Security Access System - Replace Lost or Stolen Card, per Card	Flphycol.xls
H.1.41	Physical Collocation - Space Preparation - C.O. Modification per square ft.	Flphycol.xls
H.1.42	Physical Collocation - Space Preparation - Common Systems Modification per square ft. - Cageless	Flphycol.xls
H.1.43	Physical Collocation - Space Preparation - Common Systems Modification - per Cage	Flphycol.xls
H.1.45	Physical Collocation - Space Prep - Firm Order Processing	Flphycol.xls
H.1.46	Physical Collocation - Application Cost - Subsequent	Flphycol.xls
H.1.47	Physical Collocation - Space Availability Report per C.O.	Flphycol.xls
H.1.50	Physical Collocation - 120V, Single Phase Standby Power Cost	Flphycol.xls
H.1.51	Physical Collocation - 240V, Single Phase Standby Power Cost	Flphycol.xls
H.1.52	Physical Collocation - 120V, Three Phase Standby Power Cost	Flphycol.xls

H.1.53	Physical Collocation - 277V, Three Phase Standby Power Cost	Flphycol.xls
H.1.54	Physical Collocation - Security Access - Initial Key, per Key	Flpckey.xls
H.1.55	Physical Collocation - Security Access - Key, Replace Lost or Stolen Key, per Key	Flpckey.xls

H.3 ASSEMBLY POINT

H.3.1	Assembly Point: 2-Wire Cross Connects	FLAsmbPT.xls
H.3.2	Assembly Point: 4-Wire Cross Connects	FLAsmbPT.xls
H.3.3	Assembly Point: DS-1 Cross Connects	FLAsmbPT.xls

H.4 ADJACENT COLLOCATION

H.4.1	Adjacent Collocation - Space Cost per Sq. Ft.	Fladjphc.xls
H.4.2	Adjacent Collocation - Electrical Facility Cost per Linear Ft.	Fladjphc.xls
H.4.3	Adjacent Collocation - 2-Wire Cross-Connects	Fladjphc.xls
H.4.4	Adjacent Collocation - 4-Wire Cross-Connects	Fladjphc.xls
H.4.5	Adjacent Collocation - DS1 Cross-Connects	Fladjphc.xls
H.4.6	Adjacent Collocation - DS3 Cross-Connects	Fladjphc.xls
H.4.7	Adjacent Collocation - 2-Fiber Cross-Connect	Fladjphc.xls
H.4.8	Adjacent Collocation - 4-Fiber Cross-Connect	Fladjphc.xls
H.4.9	Adjacent Collocation - Application Cost	Fladjphc.xls
H.4.16	Adjacent Collocation - 120V, Single Phase Standby Power Cost per AC Breaker Amp	Fladjphc.xls
H.4.17	Adjacent Collocation - 240V, Single Phase Standby Power Cost per AC Breaker AMP	Fladjphc.xls
H.4.18	Adjacent Collocation - 120V, Three Phase Standby Power Cost per AC Breaker AMP	Fladjphc.xls
H.4.19	Adjacent Collocation - 277V, Three Phase Standby Power Cost per AC Breaker AMP	Fladjphc.xls

H.6 PHYSICAL COLLOCATION IN THE REMOTE TERMINAL (RT)

H.6.1	Physical Collocation in the RT - Application Fee	FLCollRT.xls
H.6.2	Physical Collocation in the Remote Terminal (RT) per Bay / Rack:	FLCollRT.xls
H.6.3	Physical Collocation in the RT - Security Access - Key	FLCollRT.xls
H.6.4	Physical Collocation in the RT - Space Availability Report per premises requested	FLCollRT.xls
H.6.5	Physical Collocation in the RT- Remote Site CLLI Code Request, per CLLI Code Requested	FLCollRT.xls

H.7 COLLOCATION CABLE RECORDS

H.7.1	Collocation Cable Records - per cable record	FLCollCR.xls
H.7.2	Collocation Cable Records - VG/DS0 Cable, per cable record	FLCollCR.xls
H.7.3	Collocation Cable Records - VG/DS0 Cable, per each 100 pair	FLCollCR.xls
H.7.4	Collocation Cable Records - DS1, per T1TIE	FLCollCR.xls
H.7.5	Collocation Cable Records - DS3, per T3TIE	FLCollCR.xls
H.7.6	Collocation Cable Records - Fiber Cable, per cable record	FLCollCR.xls

FLORIDA DOCKET NO. 960786-TL
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

J.4	**LINE SHARING SPLITTER - DATA**	
J.4.1	Line Sharing Splitter - per Splitter System 96-Line Capacity in the Central Office	FLLineSh.xls
J.4.2	Line Sharing Splitter - per Splitter System 24-Line Capacity in the Central Office	FLLineSh.xls
J.4.3	Line Sharing Splitter - per Line Activation in the Central Office	FLLineSh.xls
J.4.4	Line Sharing Splitter per Subsequent Activity per Line Rearrangement	FLLineSh.xls
J.4.6	Line Sharing - per CLEC/DLEC Owned Splitter in the Central Office - per LSOD	FLLineSh.xls
J.4.7	Line Sharing - per CLEC/DLEC Owned Splitter in the Central Office - per occurrence of each group of 24 lines (48 pairs)	FLLineSh.xls

FLORIDA DOCKET NO. 960786-TL
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

H.0 COLLOCATION
H.0 COLLOCATION
H.1 PHYSICAL COLLOCATION
H.1.1 PHYSICAL COLLOCATION - APPLICATION COST - INITIAL
H.1.5 PHYSICAL COLLOCATION - CABLE INSTALLATION
H.1.6 PHYSICAL COLLOCATION - FLOOR SPACE PER SQ. FT.
H.1.7 PHYSICAL COLLOCATION - CABLE SUPPORT STRUCTURE
H.1.8 PHYSICAL COLLOCATION - POWER PER FUSED AMP
H.1.9 PHYSICAL COLLOCATION - 2-WIRE CROSS-CONNECTS
H.1.10 PHYSICAL COLLOCATION - 4-WIRE CROSS-CONNECTS
H.1.11 PHYSICAL COLLOCATION - DS1 CROSS-CONNECTS
H.1.12 PHYSICAL COLLOCATION - DS3 CROSS-CONNECTS
H.1.13 PHYSICAL COLLOCATION - 2-WIRE POT BAY
H.1.14 PHYSICAL COLLOCATION - 4-WIRE POT BAY
H.1.15 PHYSICAL COLLOCATION - DS1 POT BAY
H.1.16 PHYSICAL COLLOCATION - DS3 POT BAY
H.1.17 PHYSICAL COLLOCATION - SECURITY ESCORT - BASIC, PER HALF HOUR
H.1.18 PHYSICAL COLLOCATION - SECURITY ESCORT - OVERTIME, PER HALF HOUR
H.1.19 PHYSICAL COLLOCATION - SECURITY ESCORT - PREMIUM, PER HALF HOUR
H.1.23 PHYSICAL COLLOCATION - WELDED WIRE CAGE - FIRST 100 SQ. FT.
H.1.24 PHYSICAL COLLOCATION - WELDED WIRE CAGE - ADD'L 50 SQ. FT.
H.1.31 PHYSICAL COLLOCATION - 2-FIBER CROSS-CONNECT
H.1.32 PHYSICAL COLLOCATION - 4-FIBER CROSS-CONNECT
H.1.33 PHYSICAL COLLOCATION - 2-FIBER POT BAY
H.1.34 PHYSICAL COLLOCATION - 4-FIBER POT BAY
H.1.37 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM – SECURITY SYSTEM, PER CENTRAL OFFICE, PER SQUARE FOOT
H.1.38 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM - NEW ACCESS CARD ACTIVATION, PER CARD
H.1.39 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM – ADMINISTRATIVE CHARGE, EXISTING CARD. PER CARD
H.1.40 PHYSICAL COLLOCATION - SECURITY ACCESS SYSTEM – REPLACE LOST OR STOLEN CARD, PER CARD
H.1.41 PHYSICAL COLLOCATION - SPACE PREPARATION - C.O. MODIFICATION PER SQUARE FT.
H.1.42 PHYSICAL COLLOCATION - SPACE PREPARATION - COMMON SYSTEMS MODIFICATION PER SQUARE FT. - CAGELESS
H.1.43 PHYSICAL COLLOCATION - SPACE PREPARATION - COMMON SYSTEMS MODIFICATION PER CAGE

H.1.45 PHYSICAL COLLOCATION - SPACE PREPARATION - FIRM ORDER PROCESSING
H.1.46 PHYSICAL COLLOCATION - APPLICATION COST - SUBSEQUENT
H.1.47 PHYSICAL COLLOCATION - SPACE AVAILABILITY REPORT PER C.O.
H.1.50 PHYSICAL COLLOCATION - 120V, SINGLE PHASE STANDBY POWER COST
H.1.51 PHYSICAL COLLOCATION - 240V, SINGLE PHASE STANDBY POWER COST
H.1.52 PHYSICAL COLLOCATION - 120V, THREE PHASE STANDBY POWER COST
H.1.53 PHYSICAL COLLOCATION - 277V, THREE PHASE STANDBY POWER COST
H.1.54 PHYSICAL COLLOCATION - SECURITY ACCESS - INITIAL KEY, PER KEY
H.1.55 PHYSICAL COLLOCATION - SECURITY ACCESS - KEY, REPLACE LOST OR STOLEN KEY, PER KEY

Element Description

A physical collocation arrangement provides a CLEC with an efficient means for connection to the BellSouth network.

Physical Collocation provides for the installation of collocation-owned equipment and facilities within leased floor space in BellSouth Central Offices for the purpose of connecting to the BellSouth network to the extent such collocation is technically feasible and space is available. The collocator places its equipment in leased floor space. The collocator may choose a caged or cageless arrangement. BellSouth will build a wire cage space enclosure. However, the CLEC does not have to purchase the space enclosure i.e. cage from BellSouth. Two types of power are offered, power per fused amp and AC power, where the collocator provides his own DC power plant.

Cross-connects are purchased to access BellSouth's network. They are available as 2-wire, 4-wire, DS1, DS3, 2-fiber and 4-fiber cross connect. The distribution frame serves as a point of demarcation between the collocator's equipment and BellSouth's network. The CLEC will provide the cable from the BellSouth frame to his collocation space.

The Point of Presence (POT) Bay is a cross connect frame that is placed on the collocator's cage or outside of his space. BellSouth no longer utilizes the POT Bay as a demarcation point. POT Bay's are sold as 2-wire, 4-wire, DS1, DS3, 2-fiber and 4-fiber cross connect connections. There is no nonrecurring cost

associated with POT Bays. The purchase of a Point of Termination bay (POT bay) is optional.

The security access system consists of card readers that are installed at central office sites for the purpose of allowing the collocator access to their collocation space 24 hours a day, 7 days a week without the need of a security escort. A card reader access system allows entry to the central office with an approved card while tracing and recording the times of entry of the cardholder. The card reader access system is needed at every BellSouth Central Office with physical collocation to secure the central office and ensure the integrity of the public switched network. If the collocator chooses not to purchase security access with a card or key access, a security escort is available on a per ½ hour basis. BellSouth also offers a space availability report upon request.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

Study Assumptions

- Only the cross connects can be ordered on an electronic basis.
- A cross connect will always be ordered with either an unbundled element or interconnection order.
- For the security access system two card readers will be deployed in each central office.
- BellSouth is one of the users of the security access system.
- A card is required for each person desiring entrance to a central office. Additional offices may be added to the same card of that person by applying an administrative change charge.

H.3.0 ASSEMBLY POINT
H.3.1 ASSEMBLY POINT - 2-WIRE CROSS CONNECTS
H.3.2 ASSEMBLY POINT - 4-WIRE CROSS CONNECTS
H.3.3 ASSEMBLY POINT - DS1 CROSS CONNECTS

Element Description

An assembly point provides an alternate method for CLECs to connect to BellSouth's unbundled network elements (UNEs). By offering the CLECs the ability to recombine UNEs themselves at an assembly point location, the CLECs can create UNE combinations to provide local exchange service or to deliver dial tone to loops served by a remote office.

The assembly point cross connects provide access to 2-wire, 4-wire and DS1 UNEs. The assembly point cross connect cost is expressed on a monthly and nonrecurring basis per cross connect. A cross connect is required for each UNE in the combination established by the CLEC. The assembly point is established as a stand alone cross connect frame physically separate from the existing office distributing frame/panel. The costs reflect the equipment needed to connect the BellSouth frame where the UNEs are terminated to the assembly point frame where the CLEC will place the jumper connecting the UNEs together. The CLECs will supply any jumpers or patch cords to connect unbundled network elements together at the assembly point frame. The assembly point cost elements are as follows:

H.3.1 Assembly Point: 2–Wire Cross Connects
The 2–wire cross connect runs from the distributing frame to the assembly point frame. It is assumed that one hundred and fifty feet of cable rack and a 100 pair tie cable are required to connect the frames. The cable terminates on a connecting block.

H.3.2 Assembly Point: 4–Wire Cross Connects
The 4–wire cross connect runs from the distributing frame to the assembly point frame. It is assumed that one hundred and fifty feet of cable rack and a 100 pair tie cable are required to connect the frames. The cable terminates on a connecting block. A 4-wire cross connect utilizes twice the capacity and equipment as a 2-wire cross connect.

H.3.3 Assembly Point: DS1 Cross Connects
The DS1 cross connect runs from the DSX-1 frame to the DSX-1 assembly point frame. It is assumed that one hundred and fifty feet of cable rack and cable are required to connect the frames. As a result of the physical separation of the assembly point frame from the existing DSX complex, the maximum allowable

length for a DS1 jumper will be exceeded. A bi-directional DS1 intraoffice repeater will be included on every DS1 cross connect to compensate for this distance.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

H.4 ADJACENT COLLOCATION
H.4.1 ADJACENT COLLOCATION - SPACE COST PER SQ FT.
H.4.2 ADJACENT COLLOCATION - ELECTRICAL FACILITY COST PER LINEAR FT
H.4.3 ADJACENT COLLOCATION - 2-WIRE CROSS CONNECTS
H.4.4 ADJACENT COLLOCATION - 4-WIRE CROSS CONNECTS
H.4.5 ADJACENT COLLOCATION - DS1 CROSS CONNECTS
H.4.6 ADJACENT COLLOCATION - DS3 CROSS CONNECTS
H.4.7 ADJACENT COLLOCATION - 2-FIBER CROSS CONNECT
H.4.8 ADJACENT COLLOCATION - 4-FIBER CROSS CONNECT
H.4.9 ADJACENT COLLOCATION - APPLICATION COST
H.4.16 ADJACENT COLLOCATION - 120V, SINGLE PHASE STANDBY POWER COST
H.4.17 ADJACENT COLLOCATION - 240V, SINGLE PHASE STANDBY POWER COST PER AC BREAKER AMP
H.4.18 ADJACENT COLLOCATION - 120V, THREE PHASE STANDBY POWER COST PER AC BREAKER AMP
H.4.19 ADJACENT COLLOCATION - 277V, THREE PHASE STANDBY POWER COST PER AC BREAKER AMP

Element Description

Adjacent Collocation is an additional alternative to an existing Physical Collocation arrangement. Physical Collocation occurs inside the BellSouth central office building. Adjacent Collocation is outside the BellSouth central office building but on BellSouth "adjacent" property. BellSouth will provide adjacent collocation arrangements where space within the Central Office is legitimately exhausted. This is subject to technical feasibility and where the Adjacent Arrangement does not interfere with access to existing or planned structures or facilities on the Central Office property. The Adjacent collocation is also limited to locations where permitted by zoning and other applicable state and local regulations. The Adjacent Arrangement shall be constructed, procured, maintained, and operated by a CLEC and in conformance with BellSouth's guidelines and specifications.

The per square foot land value is based on real-estate broker estimates. The central offices considered in the calculation are those in exhaust status for physical collocation. A probability of adjacent collocation occurrence was applied to each central office location to develop a weighted average cost per square foot. It is assumed the collocator will provide any work associated with the CEV/Hut such as building set-up, foundations, and landscaping. Thus, costs for these activities are not included in the cost figure.

BellSouth will provide AC power facilities to the adjacent site. The electrical facility cost to provide this element is developed on a generic basis for a typical site. The configuration of a typical site is: CEV/Hut is 50 feet from the BellSouth building, the distance within BellSouth building to connect to BellSouth power is 100 feet, and the standard collocator equipment layout is 200 square feet.

The AC power cost provided has two components in the cost element. The first is the material cost for the standby power facilities. The other is the added cost for the delivery of commercial AC power to the collocator's power plant. The commercial power is billed based on usage at a cost per breaker amp. Both cost components are based on the type of power voltage and phase required.

It is assumed the CLEC will place their own DC power plant in their structure. The collocator will be provided the same AC power that is available in the central office facility. If the collocator wishes to convert their power to another phase, they will need to purchase and install the transformer.

Note: A collocator would also need to purchase cable installation and cable support structure from physical collocation in order to provide adjacent collocation cross-connects.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

Specific Study Assumptions:

- 75 feet of cable rack will be required for 2-wire and 4-wire cross connects
- 100 feet of cable rack will be required for other cross connects

H.6.0 PHYSICAL COLLOCATION IN THE REMOTE TERMINAL (RT)
H.6.1 PHYSICAL COLLOCATION IN THE RT - APPLICATION FEE
H.6.2 PHYSICAL COLLOCATION IN THE REMOTE TERMINAL (RT) PER BAY/ RACK
H.6.3 PHYSICAL COLLOCATION IN THE RT - SECURITY ACCESS - KEY
H.6.4 PHYSICAL COLLOCATION IN THE RT - SPACE AVAILABILITY REPORT PER PREMISES REQUESTED
H.6.5 PHYSICAL COLLOCATION IN THE RT- REMOTE SITE CLLI CODE REQUEST, PER CLLI CODE REQUESTED

Element Description

This unbundled network element (UNE) provides for physical collocation in a remote terminal. Remote site locations include cabinets, huts, and controlled environmental vaults (CEV) owned and leased by BellSouth that house BellSouth Network Facilities. Remote Site Physical Collocation can occur where technically feasible. The CLEC shall use the remote collocation space for the purposes of installing, maintaining and operating his equipment used to interconnection with BellSouth services and facilities, including access to unbundled network elements, for the provision of telecommunications services.

The collocator files an application to request remote collocation. The application is a nonrecurring cost. The collocator may also request a written Space Availability Report - per premises requested. The report specifies the amount of remote collocation space that is available at the remote site location and the measures that BellSouth is taking to make additional space available, etc. The report is a nonrecurring cost.

The monthly cost for physical collocation space in the remote terminal is per bay /rack of space. The purchase of space allows placement of collocator-owned facilities and equipment in BellSouth remote sites.

Under Remote Site Collocation, a CLEC may elect to connect to a feeder line as follows: (1) Connection to a BellSouth feeder line (where technically feasible) via the cross connect located near the BellSouth equipment inside the Remote Terminal. In this case, the point of interconnection is the DSX or LGX panel in the Remote site. (2) Connection of the collocator's owned or leased entrance facilities into the remote site connection space from its own point of presence. BellSouth will designate a point of interconnection at the remote site location housing the collocation space, which is physically accessible to both parties, which shall be the point of entrance into the remote site.

Distribution lines will be accessed by the CLEC, who will provide a copper cable from the remote site collocation space to the feeder distribution interface. The cable will be of sufficient length for splicing. BellSouth personnel will splice the cable to a bundle of the distribution cable at the feeder distribution interface. Groups/ bundles are to be provided in 25-pr. Increments. The point of demarcation will be the splice at the feeder distribution interface.

Each party will be responsible for maintenance and operation of all equipment/facilities in its side of the demarcation point. The Collocator will have access to the site by purchasing a key. This is a nonrecurring cost.

Study Technique

Microsoft Excel spreadsheets were used to calculate the utilized unit material prices and/or investments for these UNEs. Each element was analyzed to determine the components required, and that the appropriate quantities were applied in order to develop the utilized unit material prices.

Study Assumptions

- This UNE is ordered only on a manual basis.
- The CLEC will need to order other UNEs to connect to his collocation equipment.

H.7 COLLOCATION CABLE RECORDS
H.7.1 COLLOCATION CABLE RECORDS - PER REQUEST
H.7.2 COLLOCATION CABLE RECORDS - VG/DS0 CABLE, PER CABLE RECORD
H.7.3 COLLOCATION CABLE RECORDS - VG/DS0 CABLE, PER EACH 100 PAIR
H.7.4 COLLOCATION CABLE RECORDS - DS1, PER T1TIE
H.7.5 COLLOCATION CABLE RECORDS - DS3, PER T3TIE
H.7.6 COLLOCATION CABLE RECORDS - FIBER CABLE, PER CABLE RECORD

Element Description

The Collocation Cable Records element consists of nonrecurring costs for establishing the cable records in BellSouth's systems. The records contain the competitive local exchange carrier's (CLEC) cables terminating on BellSouth's frame and are needed for cable facility assignments. A set up cost applies per request (H.7.1) along with the appropriate cable record type. For example, for voice grade/digital signal level zero (VG/DS0) two elements apply; per cable record and per each 100 pairs terminated along with the per request cost. A VG/DS0 cable record is defined as a maximum of 3600 records. The Fiber cable record is defined as a maximum of 99 records. The DS1 and DS3 cable record are defined as each T1TIE and T3TIE respectively.

Comment:

J.0 OTHER

J.4 LINE SHARING SPLITTER IN THE CENTRAL OFFICE & REMOTE TERMINAL
J.4.1 LINE SHARING SPLITTER, PER SYSTEM 96 LINE CAPACITY IN THE CENTRAL OFFICE
J.4.2 LINE SHARING SPLITTER, PER SYSTEM 24 LINE CAPACITY IN THE CENTRAL OFFICE
J.4.3 LINE SHARING SPLITTER - PER LINE ACTIVATION IN THE CENTRAL OFFICE
J.4.4 LINE SHARING SPLITTER - PER SUBSEQUENT ACTIVITY PER LINE REARRANGEMENT
J.4.6 LINE SHARING - PER CLEC/DLEC OWNED SPLITTER IN THE CENRAL OFFICE (PER LSOD)
J.4.7 LINE SHARING - PER CLEC/DLEC OWNED SPLITTER IN THE CENTRAL OFFICE (PER OCCURRENCE OF EACH GROUP OF 24 LINES (48 PAIRS))

Element Description

This unbundled network element (UNE) unbundles the high frequency data portion of the local loop in the end users' serving wire center. The CLECs can use this UNE to provide xDSL-based services for their end user customers. The loop's remaining transmission frequencies continue to provide voice grade service from BellSouth. The Line Sharing Splitter in the CO UNE is provided on a two wire unloaded line side copper loop that does not exceed 18 KF. For each loop, BellSouth provides this UNE only to a single requesting carrier and only for use at the same customer address. BellSouth will not provide this UNE if BellSouth does not currently provide analog voice service to the customer. Also, if the customer terminates his voice service with BellSouth, this UNE will be disconnected for that customer. However, if the CLEC wants to continue to provide xDSL service to the end user, the CLEC may purchase the full stand-alone loop unbundled network element.

In order to unbundle the high frequency portion of the loop; a 2-wire line-side copper loop is terminated at a splitter located in the serving wire center. The splitter routes the high frequency portion of the circuit to the CLECs xDSL equipment. One splitter or passive signal filter must also be installed at the customer's premises as CPE (Customer Premises Equipment). Since the CPE is the responsibility of the customer or CLEC, the cost of the CPE is not included. BellSouth installs only the splitter in the central office.

The Line Sharing Splitter UNE consists of the following elements: (J.4.1) a per splitter system 96 line capacity and (J.4.2) a per splitter system 24 line capacity,

(J.4.3) a per line activation in the central office per occurrence and (J4.4) a per subsequent activity per occurrence. The system splitter consists of a 96-line or 24-line capacity for 96 or 24 individual (line) connections in the central office for line sharing. The CLEC purchases collocation cross connects to connect his xDSL equipment to the splitter frame in the central office. For CO line sharing, the CLEC must have a DSLAM unit collocated in the serving central office of the end user. The line activation in the central office provides for a connection between the collocation cross connect, the splitter and the end user loop. A line activation charge is applicable for every end user loop that connects to a splitter.

When the CLEC places the splitter in his collocation space the following line sharing elements apply. J.4.3, which includes a monthly and nonrecurring cost, is applied per line activation in the central office per occurrence. Also, element J.4.6, nonrecurring cost only, applies per CLEC/DLEC Owned Splitter in the Central Office per line splitter order document (LSOD). Nonrecurring cost (J.4.7) per occurrence of each group of 24 lines (48 pair) associated with the LSOD also applies. In addition, all applicable collocation costs will be incurred

Study Technique

Microsoft Excel spreadsheets are used to develop both recurring and nonrecurring cost analyses.

Specific Study Assumptions

- "N " Unbundled Network Elements apply.
- Loop conditioning is not included. Additional charges apply if conditioning is required.
- The CLEC will need to order collocation in the central office to go with line sharing.
- The end user calls BellSouth for problems related to voice service and calls the CLEC for problems related to data service.

BELLSOUTH COST CALCULATOR OUTPUTS

FLORIDA DOCKET NO. 960786-TL
SECTION 6
UNBUNDLED NETWORK ELEMENT STUDIES

WORKPAPERS
- STUDY INPUTS
- TELRIC CALCULATOR© INPUTS
- STUDY WORKPAPERS

FLORIDA DOCKET NO. 960786-TL
APPENDIX A

BellSouth Capital Cost Calculator

Model Description
Illustrative Example of Capital cost Calculator Calculations (Electronic Format Only)

BellSouth Capital Cost Calculator

The Capital Cost Calculator is a computer application designed by BellSouth that has been integrated into the BellSouth Cost Calculator model. It was developed to produce accurate and reliable capital cost component factors (depreciation, cost of money, and income taxes) in an open, understandable, and verifiable manner. BellSouth also developed an Excel spreadsheet version of the integrated Capital Cost Calculator for the purposes of illustrating and demonstrating the methodology that underlies the integrated version. Utilizing the Excel version, all BellSouth capital cost calculations may be reviewed by taking the following steps:

1. Open the Excel version of the BellSouth Capital Cost Calculator.
2. Enable Macros.
3. Using the floating toolbar, select an account. Once done, the Excel spreadsheet will be populated with data for that specific account based on user inputs.
4. All calculations within the Excel spreadsheet may then be followed.

The following provides a step by step description of the capital cost calculations in the BellSouth Capital Cost Calculator. The workbook consists of several individual worksheets (tabs) that are referenced throughout this description. The account selected (Step 3 above) for this example is the Digital Circuit Equipment-Pair Gain account.

The first tab displays the "Capital Cost Inputs". Included in this tab are the user adjustable inputs including account nonspecific financial data such as return on equity, debt rate, debt ratio, discount rate (cost of money), and income tax rate. Additionally, account specific inputs allow the user to input the economic lives, the tax lives, the future net salvages (FNS), and the Gompertz-Makeham curve shapes of each account,

The second tab displays the "MACRS Tax Tables" . These tables provide the yearly tax depreciation rates for each Recovery Class as specified by MACRS tax depreciation rules. For example, Digital Circuit Equipment-Pair Gain falls into Recovery Class 5 and the yearly tax depreciation rates are:

Year 1	.2000
Year 2	.3200
Year 3	.1920
Year 4	.1152
Year 5	.1152
Year 6	.0576
Total	1.0000

The third tab provides the "Survival Data" for Digital Circuit Equipment-Pair Gain based on the Gompertz-Makeham survival curve defined by the user input c, G, and S parameters adjusted to match the economic life of 9.0 years as input by the user. The Gompertz-Makeham survival curves are the standard approach used in the telecom industry and are approved by most state and federal regulatory bodies. These curves represent the survival pattern of telecom plant. While the curve represents the pattern of retirements, the area under the curve represents the average life of the plant.

- Columns A and B provide survival data assuming a beginning of year (BOY) convention. For example, Year 1 begins with 100% of the investment in place. According to the survival curve, 2.89% retires in Year 1, resulting in 97.11% of the investment remaining in service at the end of Year 1.

- Columns C and D provide the same data assuming an end of year (EOY) convention.

- Column E calculates the yearly retirements (BOY convention) by subtracting Column B of the current year from Column B of the previous year. Column F calculates the yearly retirements (EOY convention) by subtracting Column D of the current year from Column D of the previous year.

- Column G determines the book depreciation rates (BOY convention) for each "life group" of the circuit account that should be recovered in each year. For example, in Year 1, Column E shows that 2.89% of the investment is retired, or has a life of only one year. Therefore, Column G shows that the full amount of 2.89% of the total investment should be recovered in Year 1. In Year 2, Column E shows that 4.60% of the investment is retired (i.e., 4.60% of the investment has a 2 year life) and Column G shows that this portion of the investment with a 2 year life must be recovered in 2 years. Therefore, 2.30% of the investment is depreciated each year for two years, resulting in 2.30 * 2 = 4.60%.

- Column H displays the depreciation rates based on EOY convention.

- Columns I and J simply add up the individual surviving depreciation rates to arrive at a composite depreciation rate for each year of the study. For example, in Year 1 the depreciation rate is the sum of all individual life groups' depreciation rates since all life groups are surviving in Year 1. In Year 2, the investment with a one year life (2.89% of the investment) has been retired and the composite depreciation rate for Year 2 is the sum of all life groups' annual depreciation rates for investment with a life of 2 years or longer. Year 3 depreciation rate is based on the sum of depreciation rates for life groups with surviving investment in Year 3, etc.

- BellSouth assumes a midyear investment convention. Midyear depreciation in Column K is determined as the average of Columns I (BOY) and J (EOY).

The fourth tab develops the "Capital Calculations" (BOY and EOY net investments) against which the cost of money is calculated.

- Column A displays the BOY capital. This value starts as 1 and then is equal to the amount outstanding at the end of year (Column E).

- Column B brings over the midyear depreciation rate per year calculated in Column K of Tab 3 "Survival Data". The depreciation rate is then multiplied by the total capital investment that needs to be recovered. This total capital investment is adjusted to include the need to recognize the value of the future net salvage (FNS). The formula is as follows:

  Midyear Depreciation times (1 less the future net salvage percent). The FNS is input by the user in Tab 1 "Capital Cost Inputs".

- Column C brings over the yearly tax depreciation rate for circuit equipment (Recovery Class 5) from Tab 2 " MACRS Tax Tables".

- Column D, Deferred Tax, is calculated as: Tax Depreciation (Column C) less Book Depreciation (Column B) times Income Tax Rate.

- Column E calculates the yearly EOY capital balance. This balance recognizes the deferred tax balance that is available to the company from "normalizing" their deferred taxes. However, this balance is assumed to have a 0% rate of return (therefore we can remove it from the capital amount the company has invested). This EOY capital is calculated as: BOY Capital (Column A) less Book Depreciation (Column B) less Deferred Tax (Column D).

The fifth tab, "Capital Costs", completes the development of the annual capital cost factors for book depreciation, cost of money, and income taxes.

- Column A, Average Capital, is used as the basis against which cost of money calculations are made. From Tab 4, the Beginning of Period Capital (Column A) and End of Period Capital (Column E) are averaged to develop the Average Capital per year.

- Column B, Book Depreciation, is simply brought forward from the Book Depreciation (Column B) in Tab 4.

- Column C, Return on Capital, is calculated as the Average Capital (Column A) times the Discount Rate (Cost of Money) of 11.25% from Tab 1.

- Column D, Return on Equity, is necessary to determine income taxes. Return on Equity is calculated as Average Capital (Column A) times the portion of capital associated with equity (1 less the debt ratio from Tab 1 times return on equity (from Tab 1).

- Column E, Grossed-Up Income Tax, is calculated as Return on Equity (Column D) times the Composite Income Tax Rate from Tab 1 divided by 1 minus the Composite Income Tax Rate.

Please keep in mind that under midyear convention, the first year values need to recognize that the capital is only on the books for ½ of a year.

Tab 5 also displays the capital cost factors for each year that plant survives based on the adjusted survival curves for the plant account. In order to develop a set of levelized annual cost factors, two steps are necessary. First, the net present value (NPV) of the annual streams of Columns B through E is calculated using a discount rate equal to the cost of money. Second, the NPV is spread back out over the economic life of the plant account using a midyear convention approach to arrive at a set of levelized annual cost factors for book depreciation, return on capital, and income taxes.

The sixth tab "Annual Charge Factors" displays the levelized capital cost factors and their component pieces cost of money, depreciation, and income taxes) that are then applied to investments as calculated by the BellSouth Cost Calculator for all accounts to determine annual capital costs.

The integrated Capital Cost Calculator also allows the user to view both the methodology and the development of the capital costs associated with a particular account. From the integrated Capital Cost Calculator application select "View", "Methodology", "Details" and then the specific account that you want to review. Then simply follow the prompts to review the step-by-step development of capital costs associated with the specific account. The integrated Capital Cost Calculator is also equipped with a user-friendly help screen feature.

The EXCEL version of the Capital Cost Calculator is in electronic format and can be found on the CD, furnished as Appendix C, in the Documentation folder under Appendix A.

FLORIDA DOCKET NO. 960786-TL
APPENDIX B

The following worksheets showing the calculations associated with loadings and factors development discussed in Section 5 are included in this Appendix. These files are being furnished in electronic format only and can be found on the CD, furnished as Appendix C, in the Documentation Folder under Appendix B.

Loadings and Factors	**File Name**
1. TPI's/Levelized Inflation Factors	InfltnLv2.xls
2. Inplant Factors – COE	IPlntCOE.xls
3. Inplant Factors – OSP	IPlntOSP.xls
4. Plug-in Factors – Hard-wired Factors	HWPI98CL.xls
5. Supporting Equipment & Power Loadings	ComPwr.xls
6. Plant Specific, Land and Building Loadings Pole and Conduit Loadings	PLSP99Ey.xls
7. Ad Valorem and Other Taxes	98AdVals.xls
8. Gross receipts Tax	99stuse3.xls
9. Income Taxes, State and Federal	Taxes9~2.xls
10. Disconnect Factors	Discon99.xls
11. Labor Rates	99Lab_.xls
12. Right To Use Development Factor	rtu560c2.xls

Shared & Common Related Files:	**File Name**
1. Projected Expenses for 1999	EXPPRJ00.XLS
2. Summary of the Shared & Common Factors	S&CSUM00.XLS
3. Average Projected investment: 2000 - 2002	INVPRJ00.XLS
4. Projected Expenses for 2000-2002 Narrative	EXPPRJ00.DOC
5. Expense Development Factors	EXPDVF00.XLS
6. Investment Development Factors	INVDVF00.XLS
7. Service Order Proportion Factors	SVCORD00.XLS
8. Wholesale/Retail Factors for Account 6611	6611SC00.XLS
9. Wholesale/Retail Factors for Account 6612	6612SC00.XLS
10. Wholesale/Retail Factors for Account 6613	6613SC00.XLS
11. Wholesale/Retail Factors for Account 6623	6623SC00.XLS

FLORIDA DOCKET NO. 960786-TL
APPENDIX C

This appendix contains the following:

1. BellSouth Cost Calculator User Guide
2. Compact Disk containing electronic copies of filing, models, spreadsheets and instructions.

Dkt. 960786A-TL

DN 12970-01 (CD) - Declassified 06/20/03
Staff's 3rd PODs Item 43 (Attachment 2)

MAIN FOLDERS:	
DATA	DOCUMENTATION

DATA SUBFOLDERS:	DOCUMENTATION SUBFOLDERS:
Florida 271 Filing	1Narratives and Study Descriptions **File: Narrative.doc (51 pgs)**
	Cost Summary
	Models
	Xappendix

Florida 271 Filing SUBFOLDERS:	Models SUBFOLDERS:
State Average	DS1
	MDF

State Average SUBFOLDERS:	Xappendix SUBFOLDERS:
Capcost	Appendix A
Invstmts	Appendix B **File: EXPPRJ00.DOC (21 pgs)** **SAME DOCUMENT AS IN ATTACHMENT 1*
Output	Appendix C **File: User_Guide_24.doc (48 pgs)** **SAME DOCUMENT AS IN ATTACHMENT 1*
Shrdcomn	