ATTACHMENT B

FPSC DOCKET 960833-TP

TESTIMONY EXHIBITS
OF
D. CALDWELL (DDC-7 - DDC-20)

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DOCUMENT NUMBER-DATE

09306 SEP-3%

FPSC-RECORDS/REPORTING



ATTACHMENT A
Request for Confidential Classifications
Page 1
9/03/96

ATTACHMENT A

FPSC DOCKET 960833-TP

TESTIMONY EXHIBITS OF D. CALDWELL (DDC-7 - DDC-20)

Explanation of Proprietary Information

- A. This information contains actual unit cost information for discrete cost elements for the item under study. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public Disclosure of this information would provide BellSouth's competitors with an advantage in that they would know the price or rate below which BellSouth could not provide the service. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing, and overall business strategies concerning access services. This same information on competitors is not available to BellSouth. This information is valuable, it is used by BellSouth in conducting its business and BellSouth strives to keep it secret. Therefore, such information is a trade secret which should be classified as proprietary, confidential business information pursuant to Section 364.183, Florida Statutes and is exempt from the Open Records Act.
- B. This informations reflects vendor specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and services on favorable terms. This information is valuable, it is used by BellSouth in conducting its business and BellSouth strives to keep it secret. Therefore, such information is a trade secret which should be classified as proprietary, confidential business information pursuant to Section 364.183, Florida Statutes and is exempt from the Open Records Act.

Attachment A
Docket 960833-TP
Testimony Exhibits of D. Caldwell
Page 2
9/03/96

LOCATION OF THE PROPRIETARY INFORMATION

PAGE NO.	GE NO. LINE/COL. NO. REA						
Unbundled Loop (DDC-7) 8/12	Unbundled Loop (DDC-7) 8/12/96						
F23B01X000012	Cols. A-C	Α					
21-22	Col. L	Α					
24	Cols. C; Lines 16-18, 31-33	Α					
25	Lines 7-9,11, 13-15, 17	Α					
27	Cols. C; Lines 18, 23-24, 27, 30, 33	Α					
28	Lines 5, 8, 10-11	Α					
32-37	Cols. M-N	Α					
39	Line 11	Α					
42&44	Lines 117,119,121,123,125,127,130,	Α					
	132,134,136,139,141,143,145,147,14	9,					
	151,153-158						
43	Lines 13,15,17,19,21,23,26,28,30,32,	Α					
	35,37,39,41,43,45,47,49-54						
53	Cols. C&D	Α					
54,56,58	Cols. A, B, D-G	Α					
55&57	Cols. C&D	Α					
60	Col. B	A					
63	Lines 4-6; Col. B	Α					
64	Cols. D-I	A					
Unbundled 4-wire DS1 Digital	Grade Loop (DDC-8) 8/12/96						
77	Cols. A-C	A					
81&82	Cols. A-L	A&B					
84&86	Cols. A-L; Lines 35-38, Cols. B-L,	A&B					
	Lines 44-46						
88&91	Cols. AA-L	A&B					
89&92	Cols. A-L	A&B					
94-96	Col. B	A&B					
97	Cols. A,C,E,G,I	A&B					
98	Cols. A-C,E,G,H,J,K,M,N,P,R,T,V	Α					
99,101,103	Col. B	A&B					
100	Cols. A,C& Sources Col. A, Lines 68	-76 A					

Attachment A Docket 960833-TP Testimony Exhibits of D. Caldwell Page 3 9-3-96

Unbundled 4-wire DS1 Digital Grade Loop (DDC-8) 8/12/96 continued

F23B01X000102,104,	Cols. A,B,C,E,G	A&B
106,109,110	Cols. A,B,C,E,G	Α
105,108	Cols. B&F	A&B
107	Cols. A,C&Sources Col. A, Lines 142-149	A
121	Cols. A&B	Α
122	Cols. A,B,D-G	A
124	Lines 24-28	Α

Unbundled Exchange Ports (DDC-9) 8/12/96

Cols. A-D	Α
Cols. A&B	A
Col. A	A
Col. C	A
Col. C, Lines 3,4,6,12,16,17,19,25,32	A&B
Col. C, Line 31	A&B
Cols. A-F	Α
Col. C, Lines 2,3,9,10,13,16	В
Cols. A-C	Α
Col. C, Lines 32,33	A&B
Col. C, Lines 2,8,12,18,26	A&B
Col. C	В
Col. C, Lines 49-51,63-87	A&B
Col. C, Lines 92-103, 112&113	A&B
Col. C	A&B
Cols. A&F	Α
Col. C, Lines 2,3,10,11,17-27,35-45	A&B
Col. B, Lines 4-14; all of Col. C	A&B
Col. B, Lines 4-11; all of Col. C	A&B
Cols. A-C	Α
Col. C	Α
Col. C, Lines 2-5, 15	A&B
Col. C, Lines 3-6, 12-17, 23-25	A&B
Col. B, Lines 2-4; all of Col. C	A&B
Col. B, Lines 2-8; all of Col. C	A&B
Col. C	Α
Cols. A&F	A&B
	Cols. A&B Col. A Col. C Col. C, Lines 3,4,6,12,16,17,19,25,32 Col. C, Line 31 Cols. A-F Col. C, Lines 2,3,9,10,13,16 Cols. A-C Col. C, Lines 32,33 Col. C, Lines 2,8,12,18,26 Col. C Col. C, Lines 49-51,63-87 Col. C, Lines 92-103, 112&113 Col. C Cols. A&F Col. C, Lines 2,3,10,11,17-27,35-45 Col. B, Lines 4-14; all of Col. C Cols. A-C Col. B, Lines 4-11; all of Col. C Col. C, Lines 2-5, 15 Col. C, Lines 3-6, 12-17, 23-25 Col. B, Lines 2-4; all of Col. C Col. B, Lines 2-4; all of Col. C Col. B, Lines 2-8; all of Col. C Col. C Col. C

Attachment A Docket 960833-TP Testimony Exhibits of D. Caldwell Page 4 9-3-96

Unbundled Exchange Ports (DDC-9) 8/12/96 continued

F23B01X000188	Col. C, Lines 3,9,15,19	A&B	
191	Cols. A-C	Α	
192	Col. C	Α	
193	Col. C, Lines 2-5,15	A&B	
194	Col. C, Lines 1&7	A&B	
195	Col. B, Lines 2-4; all of Col. C	A&B	
196	Col. B, Lines 2-8; all of Col. C		
197	Col. C	Α	
198&199	Cols. A&F	A&B	
200	Col. C, Lines3-9,15-19	A&B	
203	Cols. A-C	A&B	
204	Col. C; Lines 35&36	A&B	
205	Col. C, Lines 3-8,14,18-23,29,36	A&B	
206	Col. C, Lines 1&7	A&B	
207	Col. C	A&B	
208&209	Cols. A&F	Α	
210	Col. C, Lines 3-24,30-49	A&B	
212	Col. C, Lines2,3,10,11,17-27,35-45	A&B	
213&214	Col. B, Lines 4-6; all of Col. C	A&B	
216	Col. C	Α	
217	Cols. C-G	Α	
218	Cols. C-I	Α	
219	Cols. C-H	Α	
242	Cols. A-H	A	

Unbundled Loop Channelization System & Central Office Channel Interface (DDC-10) 8/12/96

F23B01X000254	Cols. A-C	Α
257	Col. B	Α
258&259	Cols. C, E-O	A&B
261	Col. A, Lines 2,3,6,9,10,17-20,23,26,	A&B
	29,30,33,36	
262	Col. A, Lines 2,5,11,14,17,20,23,24,27,30	A&B
267&269	Cols. A&B	Α
268&270	Cols. A,B, D-G	Α

Attachment A
Docket 960833-TP
Testimony Exhibits of D. Caldwell
Page 5
9/03/96

Special Access Voice Grade Service (DDC-11) 8/12/96

F23B01X000289	Cols. A&B		
293	Col. A		
294-299	Cols. A,B,C-I; Lines 15, 18	Α	
300	Cols, A,B,C,D; Line 14	Α	
301,303,305	Cols. A,B,C,D; Line 6	Α	
302&304	Cols. A,B,C,D; Line 4	Α	
306,308,309	Cols. A-C	Α	
307	Col. A	Α	
310&311	Col. C, Equip. Investiment \$'s	A&B	
315-317	Cols. A&B	Α	
318-320	Cols. A-D,F-M	Α	

Operator Provided and Fully Automated Call Handling Service (DDC-12) 8/12/96

F23B01X000340,345,348,351,	Col. A	Α
346	Cols. A-F	A&B
347	Cols. A-I	A
349	Col. A, Lines 8,9,12,13,15,16,19,	В
	26-30,51,53	
350	Cols. A&B, Lines 8,11-13,17,19,21	В
352	Col. A, Lines 28-29,34-35,38,43-44	В
353	Col. A. Lines 14.16-17	Α

Verification and Emergency Interrupt Service (DDC-13) 8/12/96

F23B01X000370,374,379	Col. A	Α
375	Cols. A-G	Α
376	Col. A, Lines 12,14	Α
377	Col. A, Lines 9-10, 13-14,16,20,	В
	27-31,51,53	
378	Cols. A&B, Lines 8,13-15,19,21	В

Attachment A Docket 960833-TP Testimony Exhibits of D. Caldwell Page 6 9/03/96

Directory Assistance Access Service (DDC-14) 8/12/96

F23B01X000395	Col. A	Α
399	Col. A, Lines 3-16,20-24	Α
400	Col. A	Α
401	Col. A, Lines 3-5	Α
402	Col. A, Lines 2-3,5-6,8,11,18-22,	A&B
	43,45	
403	Col. A, Lines 2,5,9,13	A&B
404	Col A, Lines 2-3,5-6,16-24,48-49	В
Directory Assistance Data	Base Service (DDC-15) 8/12/96	
F23B01X000420	Col. A	Α
423	Lines 10,14	Α
424	Col. A, Lines 10,13,22;	Α
	Col B, Lines 10,13,15,18,22-23,25	
426	Line 7	Α
Directory Access to Direct	ory Assistance Service (DDC-16) 8/12/96	
F23B01X000439	Col. A, Lines 2,5,7	Α
443	Col. A, Lines 12,14,18,20,22	A
444	Col. A	Α
445	Col. A, Lines 10-14,24-32,	В
	53-54,57-58	
DACC Access Service (DD	C-17) 8/12/96	
F23B01X000464	Col. A	Α
467	Col. D	Α
468	Col. D, Lines 3,5,9,13,15,19,21,24, 29,31,33,36	A&B
469	Col. D, Lines 4-6,10,14	A&B

Attachment A Docket 960833-TP Testimony Exhibits of D. Caldwell Page 7 9/03/96

Directory Transport (DDC-18) 8/12/96

F23B01X000485	Col. A	A
488	Col. C	Α
489	Col. D, Lines 1-5, 13-17	A
Number Services Intercept Acce	ss Service (DDC-19) 8/12/96	
F23B01X000506	Col. A	Α
510	Col. C	Α
511	Col. D, Lines 3,5,9,13,15,19,21, 24, 28,30,32,35	A&B
512	Col. D, Lines1-10,14	A&B
513	Col. D, Lines 2-3,5,9,13,15,19,21, 24,29,32	A&B
514	Col. D, Lines 3,5,9,13,15,19,21, 24,29,32,	A&B
515&516	Col. D&F	A
CCS7 Signaling Transport Servi	ce (DDC-20) 8/12/96	
F23B01X000533	Col. A, Lines 13-24	Α
537	Col. A, Lines 14,17-18,21,25-26, 32-34,37-39,44-46	A
539	Col. A, Lines 10,17,23; Col. B, Lines 9-11,13,16-18,20,22-24,26-27, 31,35	В
540	Col. A, Lines 8,11,17-21,23,25-26, 29-30,32-34	A
541	Col. A, Lines 16-17,27; Col. B, Lines12-17, 20-31	В
542	Col. A, Lines 16-17,27; Col. B, Lines 12-17,20-34	В
543	Col. A, Lines 10,17,23; Col. B, Lines 9-11,13,16-18,20,22-24,26-27, 31,35	В

FLORIDA



UNBUNDLED LOOPS

- 2-WIRE ANALOG VOICE GRADE LOOP
- 4-WIRE ANALOG VOICE GRADE LOOP
 - 2-WIRE ISDN DIGITAL GRADE LOOP

COST STUDY DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

UNBUNDLED LOOPS

COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING
SECTION 5	COST DEVELOPMENT - NONRECURRING
SECTION 6	SPECIFIC STUDY ASSUMPTIONS
SECTION 7	FACTORS AND LOADINGS

SECTION A

SECTION A

FLORIDA UNBUNDLED LOOP

PROPRIETARY RATIONALE

The Florida Unbundled Loop Cost Study for 2-Wire and 4-Wire Analog Voice Grade Loops and 2-Wire ISDN Digital Grade Loop contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing this element on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage in that they would know the price or rate below which BellSouth could not provide the service. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies concerning access services. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Florida Unbundled Loop Cost Study is considered proprietary.

FLORIDA UNBUNDLED LOOPS

INTRODUCTION AND OVERVIEW

This Long Run Incremental Cost study for Voice Grade Loops (2-Wire and 4-Wire) and 2-Wire ISDN Digital Loops is being provided in response to orders set forth by the Florida Public Service Commission in Docket No. 950984-TP Order No. PSC-96-0444-FOF-TP (Unbundling), issued March 29, 1996.

The Unbundled cost elements referred to as loops (2-wire analog voice grade, 4-wire analog voice grade, and 2-wire ISDN digital) represent the cost of the physical transmission facilities (or channel or group of channels on such facility) which extend from the end office to a demarcation point at the customer's premises, (i.e. the network interface). The cost of each facility is determined by loop characteristics as follows:

- type of cable(fiber or copper)
- plant type (aerial, buried, underground)
- size/gauge
- length
- electronic equipment

Loop costs represent both feeder and distribution outside plant in a single line residence/single line business serving environment. The transmission facility terminates on the main distribution frame and does not enter the BellSouth switch. If the loop is served via digital loop carrier, a central office digital loop carrier terminal is required to convert the digital signal to voice grade analog for delivery to the Alternate Local Exchange Carrier.

The Loop Cost Model is a database tool that houses all the facility characteristics described above and produces an average cost. Spreadsheets are used to convert the loop investments into recurring cost.

Recurring costs presented in this study are directly assigned, incremental and levelized so as to be appropriate for the 1996 - 1998 study period. Nonrecurring costs follow the same convention and represent 1996 - 1998 levelized costs also. These long-run incremental costs are developed by using 1995 level incremental loadings and annual cost factors based on 13.2% Cost of Money and directly assigned labor rates.

FLORIDA UNBUNDLED LOOPS

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting the Florida 2-Wire Analog Voice Grade Loop, the 4-Wire Analog Voice Grade Loop, and the 2-Wire ISDN Digital Loop.

All costs are developed utilizing Long Run Incremental Cost methodology. In determining these costs, direct incremental costing techniques are used that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternately, costs that would be saved if the production levels were reduced. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to insure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and therefore are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for the Unbundled Loop costs is to determine the forward-looking network architecture. Material prices for the cables and associated equipment are defined. Next, account specific Telephone Plant Indices are applied, when necessary, to trend investments to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation (both telephone company and contractor) labor. The deployment probabilities and utilization factors are also considered.

Plant account specific Investment Inflation Factors are applied to the installed investments to trend the base year, or study year, investments to levelized amounts that are valid for a three to five year planning period. Appropriate loadings for land, builiding and miscellaneous equipment, and right-of-way fees are then applied.

Next, 1995 level Florida Intrastate Incremental Annual Cost Factors are used to calculate the direct cost of capital (in this case, 13.2%), ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each USOA FRC) are applied to levelized investments by account code, yielding an annual cost per account code. These costs are then divided by twelve to arrive at a monthly cost per cost element.

DEVELOPMENT OF NONRECURRING COSTS

Nonrecurring costs are "one-time" costs incurred as a result of provisioning, installing, and disconnecting the 2-Wire Analog Voice Grade Loop, the 4-Wire Analog Voice Grade Loop, and the 2-Wire ISDN Digital Loop. The first step in developing nonrecurring costs is to determine the cost elements related to the study. These cost elements are then described by all of the individual work functions required to provision the cost element. The work functions can be grouped into four categories. These are service order, engineering, connect and test, and technician travel time. The work function times, identified by subject matter experts, are used to describe the flow of work within the various work centers involved. Installation and provisioning costs are developed by multiplying the work time for each work function by the directly assigned 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. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

FLORIDA UNBUNDLED LOOP

SUMMARY OF RESULTS

This section contains a cost summary for both recurring and nonrecurring cost elements studied for the 1996 - 1998 Unbundled 2-Wire Analog Voice Grade Loop, the 4-Wire Analog Voice Grade Loop, and the 2-Wire ISDN Digital Loop.

FLORIDA UNBUNDLED LOOP

SUMMARY OF RESULTS

							A Monthly <u>Cost</u>	ර Nonrecu <u>First</u>	C rring Cost <u>Additional</u>
5	2	Wire	Analog	Voice	Grade	Loop			
6	4	Wire	Analog	Voice	Grade	Loop		A selection of the sele	
7	2	Wire	ISDN D	igital	Grade	Loop		No. of the second	

Private/Proprietary:
No disclosure outside BellSouth except by written agreement

FLORIDA UNBUNDLED LOOPS

COST DEVELOPMENT - RECURRING

Generally, economic cost development is outlined in Section 2. Network architecture is determined, the necessary equipment is identified, material prices are obtained, factors, utilization and loadings are applied and the result is levelized for the study period. Annual cost factors are applied to convert the investment to cost.

The following workpapers show how a typical loop cost investment is developed. From all loop investments an average loop investment is created and then, as described above, annual and monthly costs are developed.

LOOP COST DEVELOPMENT PROCEDURES

Loop Survey Data Collected and Entered into the Loop Investment Model

Tab A - Sample Survey Circuit Data

Tab B - Sample Circuit entered into Model

Loop Investment Model Calculations

Tab C - Conversion of cable sheath-level investments to circuit-level investments.

Tab D - Development of installation, engineering, electronic equipment (see Tab H) and exempt materials associated with cable placement.

Tab E - Sample circuit investment results.

Computation of Average Loop Investments by Class of Service Tab F - Overview of methodology.

Conversion of Loop Investments to Recurring Costs

Tab G - Overview of Recurring Cost spreadsheet methodology.

TAB A

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"9543609149",2,1,"45C","Buried Copper Cable",1,600,24,20,","
"9543609149",2,2,"45C","Buried Copper Cable",1,900,26,950,","
"9543609149",2,3,"45C","Buried Copper Cable",1,400,26,325,"","
"9543609149",2,4,"45C","Buried Copper Cable",1,200,26,1700,"","
"9543609149",2,5,"12C","Building Entrance Copper Cable",1,50,26,190,"","
"9543609149",3,1,"5C","Building Entrance X-Box",1,50,0,0,"MR 5460 NW 55TH BLVD","
"9543609149",3,1,"5C","Underground End Section or Bridged Tap",4,600,26,1990,","TW"
"9543609149",3,2,"45C","Buried End Section or Bridged Tap",4,600,26,645,"","=D"
"9543609149",3,3,"45C","Buried End Section or Bridged Tap",4,600,24,20,","
"9543609149",3,4,"5C","Underground End Section or Bridged Tap",4,600,26,645,","=D"
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TAB B

Lucsday, May

FLORIDA LOOP COST STUDY -- CABL'

TERIAL INVESTMENTS FOR LOOP SAMPLE #2

l'age

TOOP #:200

STATE: FL. SVC DESC: Florida Loop Survey Circuit

CIRCULT ID: 3053609149

CITE DRIBBITIMA

CIRCUIT TYPE: V

CIRCUIT LEVEL: DS0

DESIGN: 13 CLASS OF SYC: RESIDENCE

DEC & MUXTOADINGS B

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П	1	1	Fiber	F5C	FOCALLAUDB60	CABLE FB-OPT ALI, 40DB 60	F	60	Sgl	HIMID	971 (10	
П	2	-	Fiber	F5C	FOCALL40D860	CABLE FB-OPT ALI, 40DB 60	F	60	Sgi	40.16	845 UN	
	3	1	Fiber	P5C	FOCALLAGOBIO	CABLE FB-OPT ALL 40DB 60	F	60	Sgl	HAIL	951,00	-
	4	1	Fiber	PSC	FOCALLAODB40	CABLE FB-OPT ALL 40DB 60	F	60	Sgl	HAIb	3,256 (0)	\vdash
	5	3	Fiber	F5C	FOCALLADDB60	CABLE FB-OPT ALL 40DB 60	F	60	Sgl	46416	3,686,00	\vdash
	•	ı	Fiber	F5C	FOCALLAGD836	CABLE FB-OPT ALL 40D8 36	F	36	Sgl	41/16	3,148 00	_
	7	1	Fiber	F5C	FOCALLADDE36	CABLE FB-OPT ALL 40DB 36	F	36	Sgl	HMb	2,359 (10)	
	8	1	Fiber	F5C	FOCALL40D836	CABLE FB-OPT ALL 40DB 36	F	36	Sgl	#Alb	4,653 (10)	_
	4	1	Fiber	P5C	FOCALLADDB36	CABLE FB-OPT ALL 40DB 36	F	36	Sgl	44klb	3,757 00	
	10		Fiber	F5C	FOCALLANDB36	CABLE FB-OPT ALL 40DB 36	F	36	Sgl	40Alb	62 (10)	$\overline{}$
	11	ı	Fiber	F5C	FOCALLAUDB30	CABLE FB-OPT ALL 40DB 30	F	30)	Sgl	HAIL	2,860 00	-
\Box	12	1	Fiber	F22C	FOCALL40D830	CABLE FB-OPT ALL 4008 30	F	30	Sgl	40Ab	1,600 00	_
	13	1	Fiber	F5C	FOCALL40D830	CABLE FB-OPT ALL 40DB 30	F	30	Sgl	4thlb	240 (0)	
	14	. 1	Fiber	F5C	FOCALL40DBI#	CABLE FB-OPT ALL 400B 18	F	18	Sgl	#klli-	1,818.00	
1	15		Fiber	F5C	FOCALL40DBIA	CABLE FB-OPT ALL 40DB 18	F	18	Sgi	40.16	1,652 (0)	
	16	1	Filter	F45C	FOCALLAUDBIS	CABLE FB-OPT ALL 40DB 18	F	18	Sgl	40AIb	700 00	_
	17	1	Fiber	F22C	FOCALLAUDBIS	CABLE FB-OPT ALL 4008 18	F	18	Sgl	#WIP	2,212 (10)	
	18	1	Fiber	F22C	FOCALLADOBIS	CABLE FB-OPT ALL 40DB 16	F	18	Sgl	KAID	5(19 (1))	
	19	-	Fiber	F22C	FOCALLANDBIB	CABLE FB-OPT ALL 40DB 14	F	18	Sgl	44AIb	482 (10)	
	20		Fiber	F45C	FOCALLAGDB18	CABLE FB OPT ALL 40DB IS	F	18	Sgl	4thtb	572 (10)	
	21	3	Fiber	F\$C	FOCALLAODB12	CABLE FB-OPT ALL 40DB 12	F	12	Sgl	HAIb	692 (10)	
	22	ı,	Faber	F45C	FOCALLANDB12	CABLE FB-OPT ALL 40DB 12	F	12	Sgl	40.10	2,614 (10)	
'	21	1	Fiber	F22C	FOCALLAUDB12	CABLE FB-CIPT ALL 40DB 12	F	12	5gl	10.16	2,8 H (k)	
	24		faber	F45C	FOCALLADOB12	CABLE FB-OPT ALL 4010B 12	F	12	Sgl	101.111	909 (10)	٠
	25	-1	fiber	F45C	FOCALLADDB12	CABLE FB-OPT ALL 40DB 12		12	\ <u>"</u> 'ygl	HAID	790 00	.
	26		tiber	F5C	ECCALLANDBIB	CABLE EB OPT ALL BODS 18	F	18	581	40.10	5,276 00	
	28	1	Copper	50	WINNTER.	LRIC mix of 22,24,26 gauge	——	estil)		-	40 (6)	-
			Copper	45t	MON RIC	I RIC aux of 22,24,26 gauge		148)			25 00	
	- 11	- 1	Collibra	454	emit Ric.	14GC mix of 22,24,26 gauge		editi			20 (0)	1

Tuesday, May .

FLORIDA LOOP COST STUDY -- CABLE

.TERIAL INVESTMENTS FOR LOOP SAMPLE #2

Page

SIAH: IL

CIRCUIT ID:3053609149

CTTE: DRBHELMA

SVC DLSC - Florida Loop Survey Circuit

DEC & MUNICADINGS B

			CIRCU			DESIGN: 13 ROUTEMEET:	CLASS OF SVC: RI	ESIDENCE R MILLS:	DIC.	MUXTOADI	J	K	<u>L</u>
	AB	C	D	E	F	13.5		1	7175	Gauge Mode	Pagnant/DB	Lets	Lo Hay
•	512 15 7		1.2	` :	122.24			p	900	міх	В	950 00	4
Ы	32 l	Cupper		7000ERGC	LRIC mus of 22,24, LRIC mix of 22,24,			D	400	MIX	В	325 (11)	1 6
7	33 1	Cupper			LRIC mux of 22,24,			D	200	MIX	B	1,700 00	
g l	34 1	Copper			Copper Riser Cab			D	50	26	К	190 00	
٠,	- 	C	120	333892750	Cobber keer can	E MAN			<u> </u>				

TAB C

Conversion of Cable Sheath Investments to DS0-equivalent Investments

The Loop Investment Model stores cable investments at the actual price which BellSouth Telecommunications currently pays for each cable type. The investments are maintained at a "sheath foot" level and must be converted to a circuit-level investment before loop costs can be developed.

The first step in developing a circuit-level cable investment is to determine the number of copper pairs or fiber strands which are typically utilized for a given cable. This is accomplished by applying the following utilization percentages to the cable size (# of pairs or strands):

	A <u>Cable Type</u>	B <u>Placement</u>	<u>Utilizatior</u>	Percentages	
11 12 13 14	Copper Copper Fiber Fiber	Feeder Distribution Feeder Distribution			
F	or example:				
16 17 18 .					······

The second step in developing a circuit-level cable investment is to determine the number of DSO-level circuits supported by the utilized copper pairs or fiber strands as determined above. This is accomplished by applying the following typical DSO circuit counts to the number of utilized copper pairs or fiber strands:

	Cable Type	Placement	DS0-equivalent Circuits
24 25	Copper	Feeder	į
26	Copper DLC* on Copper	Distribution Feeder	· .
27 28	DLC on Fiber DLC on Fiber	Feeder Distribution	
	* DLC = Digital Loop Ca		·

For example:

3| 32 33

Private/Proprietary: No disclosure outside BellSouth except by written agreement.

The third step in developing a circuit-level cable investment is to divide the sheath foot investment by the DS0-equivalent count for the cable and multiply the circuit-foot investment by the number of cable feet.

For example:

7		900 pair buried copper distribution cable:	per sheath foot			
8		≠ of DS0-equivalent circuits:	900	3DS0-equivalent circuits		
Ą		Conversion from sheath to circuit investment:		Pper circuit foot		
		= of caple feet:	. 950			
H		Total circuit-level cable investment:	950 *	-		
		{Loop segment #32, Item #1 in the sample circuit	t data and results	s }		
13		60 strand underground fiber feeder cable:		heath foot		
19		≠ of DS0-equivalent circuits:	60°;	DS0-equivalent circuits		
10	•	Conversion from sheath to circuit investment:	<u>;</u>	per circuit foot		
,		# of cable feet:	971			
17		Total circuit-level cable investment:	971 **	AL LAYAGO TOPO TOPO TOPO TOPO TOPO TOPO TOPO TO		
		{[.oon segment#], item #1 in the sample circuit (data and results.	}		

TAB D

Development of Installation, Engineering, Electronic Equipment and Exempt Material Investments Associated with Cable Placement

After developing circuit-level cable investments, the model computes installation, engineering, and exempt material investments associated with cable placements. This is accomplished through the use of inplant factors which are state and field reporting code specific.

	· 🗡	B	ے
	Field Code	Investment Description	Inplant Factor
9	45C	Telco Installation Labor -	
		buried copper cable	
11	45C	Telco Engineering Labor-	
		buried copper cable	
13	45C	Contractor Installation Labor-	<u>25 (wp>====================================</u>
مرا		buried copper cable	
15	45 C	Exempt Material-	- 45VIA
		buried copper cable	
17	20C	Right-of-Way	_
10			
18		able investment:	
	•	pair copper distribution cable; Loop	segment #32, item #1
	in the sample	circuit data and results.)	
	Calculations:		
	Compute t	he Total Material Investment:	
23	(mapato i	/(1-exempt material factor) =	
23 24	223 8	S :	
	Exempt M	aterial Investment:	
	•	material investment - Cable investme	ent =
27		\$	
			, , , , , , , , , , , , , , , , , , ,
	Telco Insta	illation Labor Investment:	
•	Total	material investmen <u>t * Telco in</u> stallat	ion factor =
30		\$	
	_	ineering Labor Investment:	
	Total	material investment • Telco enginee	ring factor =
33			

For example:

Private/Proprietary: No disclosure outside BellSouth except by written agreement.

5	Total material investment • Contractor installation factor •
8	Right-of-Way Investment: Total material investment • ROW factor = S
	TOTAL INVESTMENTS FOR THIS CABLE SEGMENT:
10	20C \$

ELECTRONIC EQUIPMENT:

Following the development of total cable segment investments, the model pulls-in electronic investments which have been developed in the Fundamental Digital Loop Carrier Investment Model and the Fundamental Multiplexer Investment Model. These investments are stored in the model at a DSO-equivalent level and are design specific.

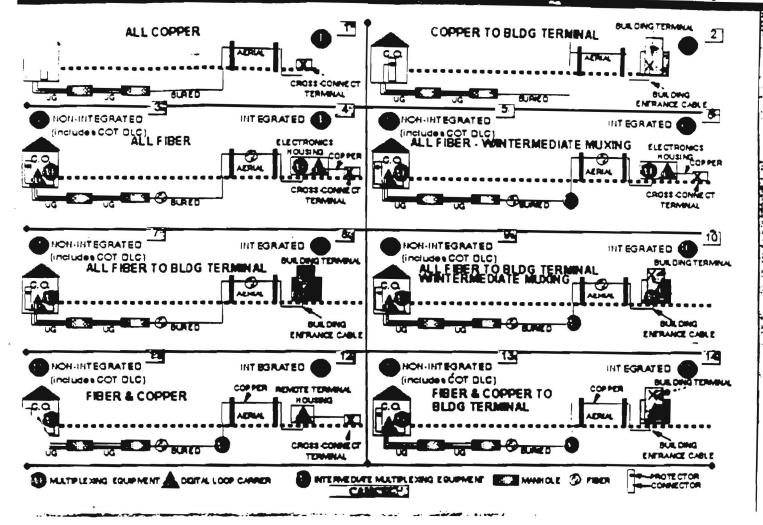
A loop design number is assigned to each survey circuit as it is initially loaded into the Loop Investment Model. Each survey circuit's design is determined by the characteristics of the cable segments (copper/fiber, feeder/distribution, presence of a building terminal, presence of intermediate muxing, etc.) The fourteen possible designs are listed below:

- 1 All copper loop (no electronic equipment)
- 2 All copper loop which terminates in a building terminal (no electronic equipment)
- 3 All fiber in the feeder route non-integrated digital loop carrier
- 4 All fiber in the feeder route integrated digital loop carrier
- 5 #3 with intermediate muxing
- 6 #4 with intermediate muxing
- 7 #3 terminates in a building terminal
- 8 #4 terminates in a building terminal
- 9 #7 with intermediate muxing
- 10 #8 with intermediate muxing

Design descriptions continued:

- Fiber feeder to a remote terminal with copper feeder to the interface non-integrated digital loop carrier
- Fiber feeder to a remote terminal with copper feeder to the interface integrated digital loop carrier
- #11 terminates in a building terminal
- #12 terminates in a building terminal

The sample circuit shown in this documentation is a design # 13. The electronic investments shown for this circuit in TAB E are on page #5, Segment #35 and #36. See page #4 for a diagram of these designs.



TAB E

1001 . 230

SVC DESC : Florida Loop Survey Curcuit STATE FL

CIRCUIT ID . 3053609149

CLUI CREHFLMA

CIRCUIT TYPE V CIRCUIT LEVEL : DS0 DESIGN : 13 CLASS OF SVC: RESIDENCE DIC & MUXTUADINGS B

		CH	CUI	TYPE	-		VEL : DS0	DESIGN: 13	CLASS OF				1.	/1 G. GG 34	C (1 O (1	11 40,4 6	,
	A .	В	^	D	ROUTE LE	NETH	1: 52,908	COUTE MILE:	100	2 H_	AIR M	J	K	5 15	M	_ N	
	4		NVI	FRC	Part	Lype		Description		ΗĐ	Size	Gg/Md	гуаь	Units	Unit fas	į a	talinv
J	1	_	М	F3C	FOCALL40D	DV	CABLE FB-OP	T ALL 4008 60		F	60	Sgi	40d	971	1		
- بيا	+		M	F5C	EXEMPT_MA	DV	Exempt mater	ials loadings		F	n/a	R/A	0/4	1	1] .
7_	+		8	1+C	SUPPORT_L	DΥ	Conduit ldg fo	or undg		F	n/a	n/a	n/a	1			
8 -	1		L	F3C	INPLANT_E	DV	Telco engineer	nng labor		F	n/a	n/4	n/4	1			
· -	1	5	L	F5C	INPLANT_IN	DV	Telco unstallat	ion labor		F	n/a	n/a	n/a	1			,
10 -	1		<u> </u>	F3C	INPLANT_C	DΥ	Contractor en	gineering & installat	on labor	F	n/4	n/a	n/a	l	10		
12 -	-		М	F3C	FOCALL40D	DV	CABLE FB-OF	T ALL 40DB 60		F	60	Sgl	104	845]
-	3		м	F5C	EXEMPT_MA	DV	Exempt mater	nals loadings		F	n/a	n/a	n/a	1			
13_			8	1C	SUPPORT_L	DV	Conduit ldg fo	or undg		F	n/a	n/a	n/a	1]
19 <u> </u>	-	4	L	F5C	INPLANT_E	DV	Telco enginee	ring labor		F	n/a	n/a	n/a	1	12.5	· -	
16	=		L	F5C	INPLANT_IN	DV	Telco installat	non labor		F	n/a	n/a	n/a	1	ت		1
17 [2		L	F5C	INPLANT_C	ΟV	Contractor en	gineering & installat	non labor	F	n/a	n/a	n/a	1		_	<u> </u>
18	3	- 1	м	F3C	FOCALL40D	DV	CABLE FB-O	PT ALL 40D8 60		F	60	5gl	10d	951	1]
19	-		м	F3C	EXEMPT_MA	DV	Exempt mater	nals loadings		F	n/a	n/a	n/a	1		<u> </u>]
	3	3	В	4C	SUPPORT_L	DV	Conduit idg f	or undg		F	n/a	n/a	n/a	1]
20	- 3		L	F5C	INPLANT_E	DV	Teico enginee	inng labor		F	n/a	n/a	n/a	1			
22	7		L	F5C	INPLANT_IN	1 DV	Telco installa	non labor		F	n/a	n/a	n/a	1			
23	•	- 6	1	F5C	INPLANT_C	DV	Contractor er	ngineering & installa	tion labor	F	n/a	n/4	n/a	1]
24		-	м	F5C	FOCALL40D	DV	CABLE FB-O	PT ALL 40D8 60		F	60	Sgi	404	3,256			
25	- 47		2 M	F5C	EXEMPT_MA	DV	Exempt mate	mals loadings		F	n/a	n/a	n/a	1			
20	4		3 B	+C	SUPPORT_L	DV	Conduit ldg	for undg		F	n/a	n/a	n/a	1			
27	-+		i L	F3C	INPLANT_E	DV	Telco engine	ering labor	•	F	n/a	n/a	n/a	1		<u> </u>	
28	4		5 L	F3C	INPLANT_II	V DV	Telco installe	tion labor		F	n/a	n/a	n/a]		
29	+		5 L	F5C	INPLANT_C	DV	Contractor e	ngmeening & installs	non labor	F	n/a	0/4	n/a	1	1		<u> </u>
30:	5		1 M	F5C	FOCALL40D	DV	CABLE FB-C	PT ALL 40DB 60		F	60	Sgl	. 1 0d	3.886	1		1
31	5		2 M	F3C	EXEMPT_M	A DV	Exempt mate	enals loadings		F	n/a	n/4	n/a	1			
32	5		3 B	10	SUPPORT_L	DV	Conduit ldg	for undg		F	n/a	n/a	n/a	1	4	<u></u>	- T
33	ŝ		+ L	F3C	INPLANT_E	DV	Telco engine	enng labor		F	n/a	n/a	n/a			<u></u>	-
34	3		3 L	F3C	INPLANT_I	NDV	Telco install			F	n/a	n/a	n/a		3	<u>r</u>	
35	5	T -	ó L	F3C	INPLANT_C	DV	Contractor e	ngneenng & install	ation labor	F	n/a	n/a	n/a				- <u> </u>
36	5		1 M	F3C	FOCALLA00	DV	CABLE FB-	OPT ALL 40D8 36		F	36	Sgi	40d				
37	6		2 M	∓3C	EXEMPT_M	A DV		erials loadings		F	17/4	n/a	n/4		1 1	-	
38	•	·	3 B	+C	SUPPORT_I	. DV				F	n/a	n/a	n/a				- 1
39	é	,	+ -	F5C	INPLANT_	E DV	_1			F	n/a	n/a	n/a			-	5.
40	é	•	3 L	F3C		L	t	·		F	n/a	n/a	n/a			-	
41	-6	5	6 L	FSC				engineering & install	lation labor		n/a	n/a	n/a			—	7
92	- ;	7	1 1					OPT ALL 40DB 36		F	36	Sgl	.400			<i>j</i> -	- 3.5
43		_	2 N	F3C			1	tertals loadings		F	n/a	n/a	n/a			7	- 1
44		 	3 B		SUPPORT_	L_				F	n/a		n/a			¥F	-1
45		<i>'</i>	4 6			1		eering labor		F	n/a		n/a			-	
46	, 	7	3 L	F3C	INPLANT_	IN DV	Telco instal	lation labor		F	n/a	n/a	n/a	<u> </u>		-	

[OOP ● 2.00

STATE: FL

SVC DESC - Florida Loop Survey Circuit

CIRCUIT ID . 3053609149

CLIL DRBHFLMA

CIRCUIT LEVEL : DS0 DESIGN: 13 CLASS OF SVC: RESIDENCE DLC & MUYTO ADINGS 3 CIRCUIT TYPE: V 10.02 H ROUTE LENGTH: 52,908 ROUTE MILE AIR MILES. 6 16 ABCD Description f/D Size Cg/Md PVdb eg Item M/L IRC Pid Uait lav Type Units **Equation** DV F3C INPLANT_C Contractor engineering & installation labor n/a n/a n/a ı CABLE FB-OPT ALL 40DB 36 FOCALL40D 36 40d 4.653 F3C F Sgl 11 M 7 9 EXEMPT MA DV F FSC Exempt materials loadings n/a n/a n/a 8 3 2| M ı 9 DV. Conduit ldg for undg n/a 40 SUPPORT_L n/a 3 3 8 0/4 1 + L F5C INPLANT_E DΫ Telco engineering labor F n/a ī 6/4 n/a 8 10 INPLANT_IN DV Telco installation labor n/4 3 L F5C n/a n/4 1 8 Contractor engineering & installation labor F5C INPLANT_C DΫ F n/a n/a n/a 12 31 2 L 1 CABLE FB-OPT ALL 40DB 36 36 1 M FOCALL40D D۷ F Sgl **101** 3,737 7 F3C 13 EXEMPT_MA DV Exempt materials loadings ۶ n/a F3C n/a n/aι 14 2 M Conduit ldg for undg F 40 SUPPORT_L n/a n/a n/a 7 3 B 1 15 DV Telco engineering labor F3C INPLANT_E n/an/a n/a 1 + L 16 INPLANT_IN D۷ Telco installation labor F5C n/a n/a n/a9 3 L 1 17 6 L F5C INPLANT_C Contractor engineering & installation labor n/a n/a n/a ī 18 CABLE FB-OPT ALL 40DB 36 36 FOCALL40D DV Sgl 104 F5C 62 19 10 1 M F3C EXEMPT_MA DV Exempt materials loadings F n/a n/a 2 M n/a 10 20 ₹C SUPPORT_L D۷ Conduit ldg for undg n/a 10 3 B n/a n/a 2 INPLANT_E + L F5C DV Telco engineering labor 10 n/a n/a n/a DV Telco installation labor F3C INPLANT_IN n/a n/a 23 n/a 1 24 F5C INPLANT_C DV L Contractor engineering & installation labor F n/a n/a 6 n/a 1 FOCALL40D 1 M F5C DV CABLE FB-OPT ALL 40D8 30 F 30 Sel 40d 2.860 2 11 2 M F5C EXEMPT_MA DV 11 Exempt materials loadings F n/a n/a n/a 1 24 1C SUPPORT_L DV Conduit ldg for undg 3 B n/a n/a 11 n/a 1 27 DV F3C INPLANT_E Telco engineering labor 11 4 L n/a n/a n/a 28 11 3 L F5C INPLANT_IN DV Telco installation labor 29 n/a n/a n/a 1 11 5 L F5C INPLANT_C DV Contractor engineering & installation labor n/a n/a n/a 30 F22C :: 1 M FOCALL40D DV CABLE FB-OPT ALL 40D8 30 30 Sel. 104 1.600 31 12 21.51 F22C EXEMPT_MA DV Exempt materials loadings F n/a n/a n/a 1 32 12 3 B ίC SUPPORT_L DV Pole kie for senal 0/4 n/a n/a 33 F22C INPLANT_E DΥ 4 6 Teico engineering labor n/a 1 12 n/a n/a 34 12 3 L F22C INPLANT_IN DV Telco installation labor n/a n/a n/a 1 35 6 L F22C INPLANT_C DV 12 Contractor engineering & installation labor n/4 n/a n/a 1 36 F5C FOCALL40D Ď۷ CABLE FB-OPT ALL 40D8 30 40d 240 13 1 M 30 Sgl 37 2 M F5C EXEMPT_MA DV Exempt materials loadings n/a n/a 1 13 n/a 38 4C ı 13 3 B SUPPORT_L DV Conduit ldg for undg n/a n/a n/4 30 F5C ī INPLANT_E n/# n/a 13 4 L DV Telco engineering labor n/a 40 1 13 5 L F3C INPLANT_IN DV Telco installation labor n/a n/a n/a 41 ī 13 6 L F3C n/a 42 INPLANT_C DV Contractor engineering & installation labor n/a n/a 43 404 1.818 1 M F3C FOCALL40D DV CABLE FB-OPT ALL 40DB 18 F 18 Sgl Á 1 441 2 M F3C EXEMPT_MA DV Exempt materials loadings F n/4n/a n/a +C 1 31 B n/a n/a SUPPORT_L DV Conduit ldg for undg n/4 F3C INPLANT_E n/a n/a n/a Telco engineering labor 46

F23B01X 000033

TOOP # 200 STATE FL SVC DESC: Florida Loop Survey Circuit

CIRCUITID 3053609149 CLIT DRBHFLMA

CIRCUIT TYPE: V CIRCUIT LEVEL: DS0 DESIGN: 13 CLASS OF SVC: RESIDENCE DIC & MUXTOADINGS 8

	A	В	ے	D	ROUTE LE	NGTH	: 52,908	ROUTE MILE:	10.02	4	北R M	iles J	K	ة 16 <u>ا</u>	Μ	N
[Seg	_	M/I	FRC	Pid	Type		Description	F	/D	Size	CRWq	PVVP	Units	Unit In	v Eutalins
1	14	5	L	F5C	INPLANT_IN	DV	Telco installano	on labor	E		n/a	n/a	n/a	1	1	700
9	: 4		16	F3C	INPLANT_C	DV	Contractor eng	meering & installation	labor F		n/a	n/ 4	n/a	1	7	
8	15		M	F5C	FOCALL#0D	DV	CABLE FB-OP	T ALL 40DB 18	F	•	18	Sgl	101	1,652	1	
a	13	2	М	F5C	EXEMPT_MA	DV	Exempt maten	als loadings	F		n/a	n/4	n/ a	1	7	
10	15	3	B	10	SUPPORT_L	DV	Conduit Idg fo	er undg	1	•	n/a	n/a	n/4	1	7	
11	15	-	L	F3C	INPLANT_E	עם	Telco engineer	ang labor	1	F	n/a	n/a	n/a	ı		
12	: 5	,	L	F3C	INPLANT_IN	DV	Telco unstallan	on labor	1		n/a	n/a	n/a	ı		
13	15	- 6	L	F5C	INPLANT_C	DV	Contractor eng	pneering & installation	a labor 1	F	n/a	n/a	n/a	1		
14	16	1	М	F45C	FOCALL40D	DΫ	CABLE FB-OP	T ALL 40DB 18		F	18	Sgl	404	-00		
15	16	2	м	F43C	EXEMPT_MA	DV	Exempt mater	als loadings		F	n/a	n/a	n/a	1		
16	16	- 1	В	20C	SUPPORT_L	DV	ROW ldg for b	uned		F	n/a	n/a	n/a	1	1	
17	10	1	L	F43C	INPLANT_E	DV	Telco engineer	ring labor		F	n/a	n/a	n/a	1		
18	16	,	L	F45C	INPLANT_IN	DV	Teico instaliati	on labor		F	n/a	n/a	n/a	1		
19	16	- 6	L	F45C	INPLANT_C	DV	Contractor eng	gineering & installation	n labor	F	n/a	n/a	n/a	1	7	
20	17	1	М	F22C	FOCALL#0D	DV	CABLE FB-OF	T ALL 4008 18		F	18	Sgi	101	2.232		,
21	17	- 7	м	F22C	EXEMPT_MA	DV	Exempt mater	nals loadings		F	n/a	n/a	n/a	1		
22	7	-	В	ıc	SUPPORT_L	DV	Pole ldg for as	mai		F	n/a	n/a	n/a	1		
23		_	L	F22C	INPLANT_E	DV	Telco engineer	nng labor		F	n/a	n/a	n/a	1	Ţ	
24			L	F22C	INPLANT_IN	DV	Telco installat	on labor		F	n/a	n/a	n/a	1		
25	- 17	· -	L	F22€	INPLANT_C	DV	Contractor en	gineering & installatio	n labor	F	n/a	n/a	n/a	1	1	
26	18		i M	F22C	FOCALL40D	DV	CABLE FB-O	PT ALL 40D8 18		F	18	5gl	.404	509		
27	18	-	2 M	F22C	EXEMPT_MA	DV	Exempt mater	nals loadings		F	n/a	n/a	n/a	1		
28	:5		3 8	īC	SUPPORT_L	DV	Pole ldg for a	enal		F	n/a	n/a	n/a	1		*
21	18	1	+ L	F22C	INPLANT_E	DV	Telco enginee	ring labor		F	n/a	n/a	n/a	1		
30	1.8		5 L	F22C	INPLANT_IN	DV	Telco unstallat	non labor		F	n/a	n/a	n/a	1		
31	18	,	5 L	F22C	INPLANT_C	DV	Contractor en	igineering & installatio	n izbor	F	n/a	n/a	n/a	1		
32	19	,	ijМ	F22C	FOCALL40D	DV	CABLE FB-O	PT ALL 40DB 18		F	18	Sgl	.404	482		
33		9	2 M	F22C	EXEMPT_MA	VO	Exempt mate	mals loadings		F	n/a	n/a	n/a	1		
34		9	3 8	ιc	SUPPORT_L	DV	Pole ldg for a	enal		F	n/a	n/a	n/a	1		
35		9	11	F22C	INPLANT_E	DV	Teko enginee	ering labor		F	n/a	n/a	n/a	1		7
36	_	9	3 L	F22C	INPLANT_IN	I DV	Telco installa	tion labor		F	n/a	n/a	n/a	l		
37	1.4	9	6 L	F22C	INPLANT_C	VQ	Contractor er	ngmeering & installatio	on labor	F	n/a	n/a	n/a	1	<u> </u>	
38	2	0	ग्र	F43C	FOCALL40D	ΟV	CABLE FB-O	PT ALL 40DB 18		F	18	Sgl	.404	572		<u> </u>
34	3	0	2 M	F45C	EXEMPT_M	NDV	Exempt mate	mals loadings		F	n/4	n/a	n/a	1	11	<u></u>
40		0	3 8	20C	SUPPORT_L	DV	ROW ldg for	buned		F	n/4	n/a	n/a	1		
4	2	0	16	F45C	INPLANT_E	DV	Telco engine	ering labor		F	n/a	n/a	n/a	1	 	3
4	-	0	3 L	F45C	INPLANT_II	V DV	Telco installe			F	n/a	n/a	n/a	1		7 1
43			6 L	F45C	INPLANT_C	DV	Contractor er	ngmeenng & metallate	on labor	F	n/a	n/a	n/a	1	 -	1
4	1		1 M	F5C	FOCALL40D		CABLE FB-C	OPT ALL 40DB 12		F	12	Sgl	.40.1		4	
4	5	1	2 M	F3C	EXEMPT_M.	A DV	Exempt matt	enals loadings		F	n/a	n/4	n/a			
40	, :	1	3 B	40	SUPPORT_L	DV	Conduit ldg	for undg		F	n/a	0/4	n/a	1		
	Ë					_			===	=		_==			F23B0	1X 000034

TOOP # 2.00 STATE FL SVC DESC : Florida Loop Survey Circuit

CIRCUIT ID: 3053609149 CLLI DRBHFLMA

CIRCUIT TYPE: V

CIRCUIT LEVEL: D50 DESIGN: 13 CLASS OF SVC: RESIDENCE DUCAMUX (OADINGS 8

	۸	2	^	D	ROUTE LE	NETH	: 52.908	ROUTE MILE	10 02	3	뿟M	ILES.	ĸ	5 16 L	М		N
1	<u> </u>	ltem	<u>C</u>	_==	Fid	Гуре		Description	E/	Ð	Size (Ck/Md		Units	Unit	lav	Intaliny
			_	F5C	INPLANT_E		Telco engineen		F		n/a	n/a	n/a	1	F		440-
ما	21		L	FSC			Teico installano		F	+	n/a	n/a	n/a	1	-		
7	21	6		F5C	INPLANT_C			meering & installation labo	or F	+	n/a	n/a	n/a	1	7	•	*
8	-:		М	F45C	FOCALL40D	i)		T ALL 40DB 12	F	7	12	Sgl	404	2.604		Į	
10	17	2		F45C		οv	Exempt maten.	als loadings	F	1	n/a	n/a	n/a	1	7	ļ	
`	22		В	20C	SUPPORT_L	DV	ROW ldg for b	uned	F	+	n/a	n/a	п/а	1	7	j	
11			<u> </u>	F45C	INPLANT_E	D۷	Telco engineeri	ing labor	F	\dashv	n/a	n/a	n/a	1	寸		
13	- 11		L	F45C	INPLANT_IN	DV	Telco installati	on labor	F	\dashv	n/a	n/a	n/a	l			
14			i.	F45C	INPLANT_C	DV	Contractor eng	nneening & installation lab	or F	寸	n/a	n/a	n/a	1	,	Î	1
	23		М	F22C	FOCALL40D	DV	CABLE FB-OP	T ALL 40DB 12	F		12	5gl	+0d	2,834			
15	23		M	F22C	EXEMPT_MA	DV	Exempt materi	ials loadings	F		n/a	n/a	n/a	1			
17	23		В	1C	SUPPORT_L	DV	Poie ldg for ae	nal	F		n/a	n/4	n/a	1			
18	23	Ļ	L	F22C	INPLANT_E	DV	Telco engineer	ning labor	F		n/a	n/a	n/a	1			
19	23	5	L	F22C	INPLANT_IN	DV	Teico installab	on labor	F		n/a	n/a	n/a	ì			
20	23	6		F22C	INPLANT_C	DV	Contractor en	gineering & installation lat	bor F		n/a	n/a	n/a	1			
21	24	1	М	F45C	FOCALL40D	DV	CABLE FB-OF	T ALL 40D8 12	F	3	12	Sgi	.40d	909		ļ	
22	24	2	м	F45C	EXEMPT_MA	DV	Exempt mater	rals loadings	I	•	n/a	n/a	n/a	1			
23		· — 3	8	20C	SUPPORT_L	DV	ROW ldg for b	buried	I	-	n/a	n/a	n/a	1			
24	i		<u> </u>	F45C	INPLANT_E	DV	Telco enganee	nng labor		3	n/4	n/a	n/a	1			
25	- - -		5 L	F45C	INPLANT_IN	DV	Telco unstallat	ion labor	1	F	n/a	n/a	n/a	1			
26	2.	. (5 L	F45C	INPLANT_C	DV	Contractor en	gineering & installation la	bor I	F	n/a	n/a	n/a	1	!		
27	22	5	١м	F45C	FOCALL#0D	DV	CABLE FB-OI	PT ALL 40DB 12	. [1	ř	12	Sgl	404	790			
28	25	5	2 M	F45C	EXEMPT_MA	DV	Exempt mater	nais loadings	_]1	F	n/a	n/a	n/a	l			
29	3	3	3 B	20C	SUPPORT_L	DV	ROW ldg for	buned		F	n/a	n/a	n/a	1			
30	3	5	1 6	F45C	INPLANT_E	DV	Teico engines	ming labor		F	n/a	n/a	n/a	1	ļ		
31	3	3	3 L	F45C	INPLANT_IN	V DV	Telco installa			F	n/a	n/a	n/a	l			¥
32	12	5	6 L	F45C		1		ngineering & installation la		F	n/a	n/a	n/a	1			
33	-	6	1 M	F3C	FOCALLAND	DV	CABLE F8-0	PT ALL 40DB 18		_	18	Sgl	101	5,276			<u> </u>
34	-	5	2 M	F3C	EXEMPT_M	A DV	•	mals loadings		F	n/a	n/a	n/a	1	ـــــ		1.
35	· []	.6	3 B	40	SUPPORT_L	_1	Conduit ldg			F	n/a	17/4	n/a	1 1	 		<u>. </u>
34	_	1	4 L	F5C	INPLANT_E		Telco engine			F	n/a	n/a	n/a	1	₩1		-
37	_	<u> </u>	3 L	F5C	INPLANT_I		Telco installa			F	n/a	n/a	n/a	1 1	┿-		
38			6 L	F3C	INPLANT_C]		ngmeering & installation li	abor	F	n/a 600	n/a MIX	Ü	+0			-
39	_		1 M		600ULRIC	DV		22.24.26 gauge	}	F	n/a	n/a	n/a	+ -)	-
40	´	.8	2 M		EXEMPT_M	_1		rnals loadings		F	n/a	n/a	n/a		<u> </u>		<u> </u>
41	<u> </u>	25	3 B	4C	SUPPORT_U		Conduit idg			F	17/4	n/a	n/a		1 7		7
42		^{7,8}	4 L	SC SC	INPLANT_E		Telco engine			F	n/a	n/a	n/a		4-3		
43 44		1-	5 L	SC	INPLANT_I			ngmeering & installation l	abor	F	n/a	n/a	n/a			ĺ	
		29	1 M		600BLRIC	DV		22.24,26 gauge		F	600	MIX	В	25			4
45	·		1 M				<u>. l</u>	enais loadings		F	n/4	n/a	n/a		+-	•	= 1
41	0	29	4 M	1	EVENIL I "M		Exempt man			Ļ.					-		-

TOOP # 200 STATE FL SVC DESC Florida Loop Survey Circuit

CIRCUITID 3053609149 CLII DRBHFLMA

CIRCUIT TYPE: V CIRCUIT LEVEL: DS0 DESIGN: 13 CLASS OF SVC: RESIDENCE DI C & MUXI DADINOS 8

	٨	BC	<u> </u>	ROUTE LE	NETI	I: 52,908	ROUTE MILE	; 10.	02 H	坐、	111 <u>.</u> ES	K_	5 16 L	M	N	
	/* Seg.	tem M/L	FRC	ľid	Type		Description		E/D		Gg/Md	шЛчР	Units	Unit Inv	Tota	ilinv
ا	29	3! B	20C	SUPPORT_L	DV	ROW ldg for bu	uned		F	n/a	Π/ ä	n/a	1	Á		
7	291	4, 5	45C	INPLANT_E	DV	Telco engineen	ing labor		F	n/a	n/a	n/a	Ī		4	l
8	29	3 L	±3C	INPLANT_IN	DV	Telco installano	on labor		F	n/a	n/a	n/a	1			Į
ä	29	2 L	+5C	INPLANT_C	DV	Contractor eng	pneering & install	lation labor	F	n/a	n/a	n/a	1		1	Ī
10	151	2 3	257⊂	DLC Equipm	DV	Channel unit p	lug-m		F	n/a	n/a	RT	1			ľ
11	331	3] 8	25.°C	DLC Equipm	DV	DLC CO. DSX-	-1 Panei		F	n/a	n/a	co	ī			
12	35	+ B	257C	DLC Equipm	DV	DLC RT. DSX-	1 Panel		F	n/a	n/a	RT	1	ļ		Ī
13	361	ι _i a	257C	MUX Equipm	DV	LRIC mux of 22	2,24,26 gauge		F	n/a	n/a	CO	1			Į
14	361	2, 8	10C	MUX Equipm	DΥ	Hut			F	n/a	n/a	RT-	1	}		4
15	16	3 B	257⊂	MUX Equipm	DV	LRIC mux of 22	2,24,26 gauge		F	n/a	n/a	RT-	1			Ī
19	.36	∔i B	4 ⊂	MCX Equipm	DV	CEV			F	n/a	n/a	RT-	l			<u> </u>
17		<u>. !</u>	<u> </u>	<u> </u>		<u> </u>		INVESTME	NT S	UBTOT	AL FOR	INV TY	PE. DV			
18							İ	INVESTM	ENT	SUBT	OTAL FO	R FEE	DER			<u> </u>

5.	eg l	tem	M/I	FRC	fid	Lype	Description	ŀ/D	Size	Gg/Md	Рудь	Units	Unit lav	Cutaliny
	31	1	М	45C	600BLRIC	DV	LRIC mux of 22,24,26 gauge	D	600	міх	В	20-		
		2	М	45C	EXEMPT_MA	DV	Exempt materials loadings	۵	n/a	n/a	n/a	1		
.	-	3	В	20C	SUPPORT_L	DV	ROW ldg for buried	D	n/a	n/a	n/a	1		
3	31	+	L	45C	INPLANT_E	DV	Telco engineering labor	٥	n/a	n/a	n/a	1		
ŧ	31	5	L	+5⊂	INPLANT_IN	DV	Telco installation labor	D	n/a	n/a	n/a	1		
5	31	5	L	45C	INPLANT_C	DV	Contractor engineering & installation labor	D	n/a	n/a	n/a	1		
ر ا د	32	1	М	45⊂	900BLRIC	Ď۷	LRIC mux of 22.24,26 gauge	D	900	MIX	8	950	1	
7	32	1	М	45C	EXEMPT_MA	DV	Exempt materials loadings	D	n/a	n/a	Π/a	1	•	
8 🗌	32	3	В	20C	SUPPORT_L	DV	ROW ldg for buned	D	n/a	n/a	n/a	1		
9 [32	4	Ĺ	45C	INPLANT_E	DV	Telco engineering labor	D	n/a	n/a	n/a	1		
_ ه	12	5	L	43 ℃	INPLANT_IN		Teico installation labor	D	n/a	n/a	n/a	1		- '
1	32	0	L	43C	INPLANT_C	DV	Contractor engineering & installation labor	D	n/a	n/a	n/a	32 5		
2	33		M	45C	400BLRIC	DV	LRIC mix of 22.24.26 gauge	P	400	MIX	8	323		
3 [33		М	45C	EXEMPT_MA		Exempt materials loadings	P	n/a	n/a	n/a	1		-
4 _	13		<u> </u>	20C	SUPPORT_L	DV	ROW idg for buried	P	n/a	n/a n/a	n/a	1		<u> </u>
ح إ	33		-	45C	INPLANT_E	DV	Telco engineering labor	D	n/a	n/a	n/a	1		P
6	13		L	45C	INPLANT_IN	ļ	Teico installation labor	 	n/a	n/a	n/4	1		
7	33		b	45C	INPLANT_C	J	Contractor engineering & installation labor	6	200	MIX	8	1,700	-	
8	34		I M	45C	200BLRIC	DV	LRIC mux of 22.24.26 gauge	10	n/a	n/a	D/4	1	1	
4	34		2 M	45C	EXEMPT_MA		Exempt materials loadings	10	n/a	n/a	n/a	1	1	
١٥	11		3 8	20C	SUPPORT_L	DV	ROW ldg for buried Telco engineering labor	10	n/a	n/a	n/a	1	1	
 			+ L 5 L	45C	INPLANT_E	DV VI DV	Telco installation labor	10	n/a	n/a	n/a	1		3
2	٠,,	<u> </u>								n/a	n/a	ì	1	
L			<u> </u>		<u> </u>			+	50	26	R	190	†	1
13	34 35		9 L 1 M	45C 45C	INPLANT_C INPLANT_C 333892750		Contractor engineering & installation labor Copper Riser Cable ARTM	D	n/a	n/a	n/a	l	B0280	

LOOP MAKEUP INVESTMENT TOTAL:

Latelinv

12

SVC DESC: Florida Loop Survey Circuit CIRCUITID 3053609149 CLLI DRBHFLMA STATE: FL LOOP # 2.00 DESIGN: 13 CLASS OF SVC: RESIDENCE DIC & MUXICADINGS 8 CIRCUIT LEVEL: DS0 CIRCUIT TYPE: V ROUTE MILE: ROUTE LENGTH: M **C** Cg/Md PVdb $\Gamma_{i}d$ Description F/U Size Units Unit Inv Type heg Item M/I FRE EXEMPT_MA DV D Exempt materials loadings n/a n/a 120 5| M Teico engineering labor n/a 0/4 0/4 DV ī 120 INPLANT_E INPLANT_IN DV Telco installation labor D n/a n/a n/a 1 8 120 71 35 9 ΙDV Contractor engineering & installation labor n/a n/a INPLANT_C R/A 12C 3| L INVESTMENT SUBTOTAL FOR INV TYPE: DV 10 11 INVESTMENT SUBTOTAL FOR DISTRIBUTION

F23B01X 000037

TAB F

Computation of Average Loop Investments by Class of Service

After developing investments for each circuit in the loop survey, investment dollars are totaled by field reporting code for Residence and Business circuits separately. The totals are then divided by the number of survey circuits for residence and business. The results represent the average or typical investment for each field reporting code for a Residence and Business circuit.

The weighted loop investment is developed by multiplying the average investment for Residence and Business by the number of lines in service at the time the survey circuits were randomly selected for the loop survey. For example, the resulting average investment for aerial metallic cable (22C and 12C - feeder and distribution) is for the 2 wire 100% non-integrated study.

Overview of Recurring Cost Spreadsheet Methodology

The following cost summary spreadsheets are developed as follows:

- 1) LRIC / 100% Nonintegrated 2 Wire
- 2) LRIC / 100% Nonintegrated 4 Wire
- 3) LRIC / 100% Nonintegrated 2 Wire ISDN

Cost Methodology:

- 1) The average investment (Column C) by Field Reporting Code (FRC) is provided by the loop investment model. The average investment represents the combined feeder and distribution average investment per circuit. The average investment per circuit includes the appropriate state sales tax.
- 2) The annual cost associated with each investment is determined by multiplying the average investment by the capital and operating expense annual cost factors. The total annual cost is divided by 12 to determine the monthly cost. The monthly cost is multiplied by the 3-5 year levelized investment factor to determine the levelized monthly cost.
- 3) Spreadsheets 1 and 3 provide for a Weighted Residential and Business Loop Cost ** and Spreadsheet 2 provides for a Business Loop Cost only.
- 4) The total levelized monthly cost for each spreadsheet includes loop associated cost additives (i.e., levelized monthly computer system cost, distributing frame cost, and TIRKS cost).
- ** The weighted residential and business loop investment (Column C) is developed by weighting the combined feeder and distribution average investment for Residence and the combined feeder and distribution average investment for Business by the respective residence or business number of access lines in service at the time the circuits were randomly selected for the loop survey.

NOTE: The terms "monthly" and "recurring" are interchangeable.

A 105 106 107 108	Combined Feeder & Distribution LRIC / 100% Nonintegrated - 2 Wire Weighted Residential & Business Lo	B nop Cost	С	D	E F	G H	ı j K	L M	N O	P Q	R S	т (u v w
100 110 111 112 113		FLORIDA	Average Investmen	Deprec t	C.O.M. 13.2%	j income Tax	Total Cap (D+F+H)	Mice 	Advel j Tex I	Oper Exp (L+N)	Local GRT 0.0152 (J+P)*R111	Total Monthly Cost	Levelized Monthly Cost
114 115 118	A Land	B 200	ّے _	(D11675C11	7) E 0.1118	0 0514	G 0.1 63 2	H 0 0000	T 00113	J 00113	K 1	(J+P+R)/12	(T"V factor) M 1.058
117 118 119	Buildings	10C, 110C, 810C		0.0302	0.0505	0.0452	U 17 4 0	a arma	0 (11)77	nm#6	0.0028		1 050
120 121	Digit Circ-Pair Gain	257C,D257C,F257C		0.1134	V.U535	U.U286	0.2058	0.0009	0.0113	0.0202	0.0034		0.952
122 123	Poles	1C, 811C) U.US/1	U.U/ <i>2</i> 3	U.U.J.Z.3	U.1721	U.U2/9	U.U113	U.U.3W.Z	0.0032		1 10/4
124 125	Aerial Ca-Metallic	22C, 12C, 802C) (0.0 6 17	1410.0	U.U.S.Sm	II ARSA	ULD/1	um3.9	U (2004	DIEMZ		1 061
126 127 128	Aerial Ce-Fiber	822C, 812C, 882C, 962C, D22C, F22C, T22C, D12C, F12C, T12C		U.U857	0.0784	0.0347	0.1796	0.0139	0.0113	0.0252	0.0031		1.003
129 130	Unground Ca-Metallic	5C, 805C	<u>_</u>	0.1036	0.0613	0.0342	0.2191	0.0291	0.0113	0.0404	0.0039		1.080
131 132	Unground Ca-Fiber	85C,865C,965C,D5C,F5C,T5C	<u> </u>	U.U679	U.140(LL)	وحديا.	U.1704	U.U 1.30	U. 0113	U.U.¢40	U.UU31		1.000
133 134	Buried Ca-Metallic	45C, 848C	L	0.Ue/6	U.0002	0.0354	U ZES	UIDAS	DØ113	U.CECOS	U.UU4 1) .USB
135 136 137	Buried Ce-Fiber	845C,858C,858C,D45C, F45C,T45C		U.U3#3	U.U516	0.0367	0.1766	0.0144	0.0113	0.025/	U.UU31		1.041
138 139	Submarine Ca-Metallic	6C, 808C		0.0000	0.0614	0.0366	0 2040	0.0150	00113	0.0263	0.0035		4 064
140	Submarine Ce-Fiber	ecc,secc,Dec.Fec,Tec		g.U960	0.0814	0.0355	0.2029	0.0150	0.0113	0.0263	0.0035	-	1-AAA
142 143	Intribid Nitork-Metallic	52C		i V.U991 i	U.U/65	0.0340	0.1786	0.0320	00113	0.0433	0.0014		
144	Intribid Nitoris-Filter	852C,D52C,F52C,T52C		j Vocati	W.W/W.J	u.wegi	U.1700	0.0320	0.0113	0.0433	0.0034		\$0.00
146	Conduit Systems	4C, 84C, 94C		P CHIZAL B	U48//	O LAMIT -	115 <i>8</i> 1	012178	amıs	D 0141	0.00,75		1.044
148 149	Aeriel Drop .	22C		0.0017	0.0797	0.0338	0 2052	0.0571	00113	0 0684	U UU42		3 4241
150 151 152	Burled Drop	45C		n'nete	U.UBUY	8.0354	0.2039	0.0543	0.0113	0.0856	0.0041		1.056
153 154 155 156	Total Investment Subtotal Levelized Monthly Cost Levelized Monthly Computer Sys Cost Levelized Monthly Disbributing Frame C	SUM(C117C151) Sum Cost (Column V)	4	•									, L
157 158	Levelized Monthly TIRKS Cost Total Levelized Monthly Cost	(((0.0052*(1+\$R\$111)*\$C121)/12 SUM(V154V157))*\$V120)										

Combined Feeder & Distribution LRIC / 100% Nonintegrated - 4 Wire BUSINESS LOOP				E F	G H	1 1	K L	M N	ОР	Q R S	5 T	U
**************************************		Avera Sevente	nent	 COM 13.2%	j Income Tax	Total Total Cap (D+F+H)	i i Mkoe	l Adval Tax	l i Oper Exp I (L+N)	Local GRT 00152 (J+P)*R7	Total Monthly Cost	Les Ma
Α .	B		D12*5C13	1)			*********	2224622344 ·	********	*********		
Land	20C		D	E	F	G	H	T	7		(J+P+R)/12	
Buildings	10C, 110C, 810C		, a man		0 0514	0 1632	0.0000	00111	00113	מ מחח מ	<u>_</u>	
Digiti Circ-Pair Gain	2570,D257C,F257C		,		0.0452	U 1/40	0.0069	0 0077	B 0146	A AA28	-	
Poles	1C. 811C		₽ 0 1134		U IJ/BA	U ASS	***************************************		A ITALY	a inla		
Aerial Ca-Metalic	222 422 444		▶ DES/1	B 01/32	0 03/20	U 1/21	0 02/9	0 0113	0 0392	0.0032		
Agrini Co-Fiber	22C, 12C, 802C 822C, 812C, 882C, 982C, D22C		b _t "may	0.0747	# #L 17.4m	9.767	HID/1	ff #177:4	61 120ma	13 (24.67)		
	F22C, T22C, D12C, F12C, T12C		0.066/ P	0.0784	U.0347	0.1796	0.0139	00113	0 0252	0.0031		
Unground Ca-Metallic	5C, 805C		A 1034	0.0813	0 0342	0 2101	0 0201				ı	
Unground Ce-Fiber	85C,885C,985C,D5C,F5C,T5C		P>, ∩ 0626	0.0800	0 0356	0.1784		0.0113	0.0404	0.0039		
Buried Ce-Metallic	45C, 846C		}				0.0135	0.0113	0.0248	0.0031		
Buried Ca-Fiber	845C,858C,958C,D45C, F45C,T45C		0.0585	0.0616	0.0367	0.1768		******	III L MINERAL	n med i		
Submarine Ca-Metallic	BC, 806C		7		0.0007	0.1700	0.0144	0.0113	U 023/	U UUS1		•
Submerine Ce-Fiber	86C,886C,D6C,F6C,T6C)* nnann	A 0814	0.0366	0 2040	0.0150	0 0113	0 0263	0 0035		1
intribid Nitwic-Metallic	52C		nanan . ₹	U U/85	حددتا ت	U.AUAN	n'n ion	U.U113	0.0203	U.UU33		
ntrbid Nilwir-Fiber	852C,D52C,F52C,T52C		P 1	4212	UUSAD	V. 1760	U.W.ZU	4.0113	U.U-SAJ	U LEASA		•
Conduit Systems	4C, 84C, 94C		0.0242	u us/	0 W-L	U. 1760	U.UJZU	0.0113	0 0433	U UU34		1
Nerial Drop	22C		0.001/	0.0/9/	U UMI 1	u. tazu	0 0020	44113	44141	4 1217.1		
Auried Drop	45C		0.0810	U.18800	U.U.336	U.ZU02	U.US/ 1	0.0113	U UDB4	11 (11)47		1
evelized Monthly Disbributing Frame Co	SUM(C12C47) Sum Cost (Cotumn V)	匚	·	V. 100	_ 11334 _	U.AUM	n noda	. UUIII	U. U 036	0 0041		1
evelized Monthly TIRKS Cont otal Levelized Monthly Cont	# (((0 0052*(1+\$R\$7)*\$C17)/12)*\$V1											1

Combined Feeder & Distribution LRIC / 100% Nonintegrated - 2 Wire IS Weighted Residential & Business Lo		С	D E	E F (3 Н	I J K	L M	N O	P Q	R S	т (u v v
State:	FLORIDA	Average Investmen	Deprec	C.O.M. 13.2%	Income Tax	Total Cap (D+F+H)	Mice I	Adval Tax 	Oper Exp (L+N)	Local GRT 0.0152 (J+P)*R111	Total Monthly Cost	Levelized Monthly Cost
A Lend	B 200	۵	(D116*3C117	0.1118	F 0.0514	G. 0.1 63 2	0.0000 H	T 00113	J 00113	K >1	(J+P+Ry12	(T"V factor)
Buildings	10C, 110C, 810C		4 UURM	() Charge	u Dest	U 1740	ai (Tang	0.0077	n n1 46	บ บบวด		1 060
Digit Circ-Pair Gain	257C,D257C,F257C			0.0836	O 0788	0 2058	0.0069	0.0113	U U5U5	A 0034		 11 942
Poles	1C,811C		ຼີ ດ.0871 ໄ	0.0725	0.0325	0.1721	0.0279	0.0113	0 0302	0.0 03 7		1 077
Aeriel Ca-Metallic	22C, 12C, 802C		Ĭ ()	ពការបរ	U.U.3.30	U.ZU3Z	0.05/1	0.0113	U,0884	0.0047		1 041
Aerial Ca-Fiber	822C, 812C, 882C, 982C, D22C, F22C, T22C, D12C, F12C, T12C		0.0867	0.0784	U.U34/	U.1 /3/8	U.U1.5W	0.0113	U.0252	0.0031		1.003
Unground Ca-Metallic	5C,805C		0.1036	0.0813	0.0342	0.2191	0.0291	0.0113	0.0404	0.0030		1.089
Unground Ca-Fiber	85C,885C,985C,D5C,F5C,T5C) Amere	V.U3UU	U.U.3330	U.1784	U.U1.35	Lerou	0 U/45	() (RES)		* 1000
Buried Ca-Metallic	45C, 846C	C-24) }	u wala	UILTH	о жен	0.0543	rema	n 0858	0.0041		1 058
Burled Ce-Fiber	845C,856C,856C,D45C, F45C,T45C		0.0505]}	0.0616	0.0367	0.1766	0.0144	0.0113	0.0257	0.0031		1.041
Submarine Ca-Metallic	6C, 806C	_	0.0960	00814	0.0366	D 2040	0.0150	00113	0.0243	0.0035	د د د سپ	1.054
Submarine Ce-Fiber	asc,saec,Dec,Fec,Tec		3 D.CO SS 3	0.0614	0.0355	0.2029	0.0150	0.0113	0.0263	0 0035		1 (190
Introdd Nibok-Metallic	52C	<u></u>	y D.DOGS 4	U.U/ U S	Ų.U34U	U.1/65	0.0220	00113	0 0433	0.0034		4 200
Introld Nink-Fiber	852C,D52C,F52C,T52C		,)				o erdze	00113	0.0433	0 0034		1.000
Conduit Systems	4C, 84C, 94C		0.0242	0.0677	0.0401	0.1520	0.0028	0.0113	A 0141	U IALD		* ****
Aerial Drop	22C		en e	0.0797	U.U.3.38	0.2052	0.0571	0.0113	0.0684	0.0042		1.041
Buried Drop	45C		0.0876 1	0.0800	U.U.354	0.2030	U.U543	U.U113	0.0006	0.0041		1,058
Total Investment Subtotal Levelized Monthly Cost Levelized Monthly Cost	SUM(C117C151) Sum Cost (Column V)		_									
Levelized Monthly Disbribuling Frame C Levelized Monthly TIRKS Cost Total Levelized Monthly Cost	out (((0.0052*(1+\$R\$111)*\$C121)/12 SUM(V154V157))*\$V120)										

TAB H

FUNDAMENTAL DIGITAL LOOP CARRIER INVESTMENT HODEL

The Fundamental Digital Loop Carrier Investment Model develops the investment for digital loop carrier systems. Investments are calculated for the system (which includes the system hardwired equipment, common plug-ins, and DSX-1 panel), deferrable plug-ins and housing (cabinets, huts and Controlled Environment Vaults). Network data is used to determine the vendor and system types which will be deployed, as well as the probability of occurrence for each system. Calculated investments are combined appropriately for the various designs specified in the Loop Investment Model.

```
Illustrative Example Investment Calculations:
 Central Office Terminal and Remote Terminal
    $20,000.00 Material Price (Hardwire, commons, DSX-1
                Panel)
        1.0750 In-Plant Factor
×
    $21,500.00 Installed Investment
           200 # Circuits per System
    $ 107.50 Per Circuit Investment
           .40 Probability of System
x
    $ 43.00 Weighted Investment
=
          .70 Utilization
+
        61.43 Utilized Investment
  Plug-in
    $ 150.00 Plug-in Material Price
        1.0900 In-Plant Factor
×
        163.50 Installed Investment
           2 # Channels per Plug-in
        81.75 Per Circuit Investment
X
         .40 Probability of System
    $ 32.70 Weighted Investment
        1.075 Spare Stock Factor
×
```

35.15 Plug-in Investment

S

PUNDAMENTAL MULTIPLEXER INVESTMENT MODEL

The Fundamental Multiplexer Investment Model develops the investment for SONET Multiplexers deployed in the Outside Plant loop. Investment data used to develop calculations for this model are taken from the SONET Fundamental Investment Model described on Page 3 of 3. Investments are developed for the hardwired equipment, common plug-ins and the DS1 working card at the DS1 level. Network data is used to determine the vendor and system types which will be deployed, as well as the probability of occurrence for each system. These investments are then combined appropriately for the various designs specified in the Loop Investment Model.

Illustrative Example Investment Calculations: Central Office and Remote Terminal

+ + +	\$250.00 \$200.00 \$ 2.50 \$.50 \$ 1.00	Fiber Terminal (per DS1) Pigtails (per DS1)
+	\$ 1.00	Fiber Jumpers (per DS1)
=	\$454.00	Total Investment per system (per DS1)
×	.50	System probability of occurrence
=	\$227.00	Weighted Investment
+	.70	Utilization
=	\$324.29	Utilized Investment
+	•	# Circuits per DS1
_	\$ 13.51	Circuit: Investment

SONET PUNDAMENTAL INVESTMENT MODEL

The SONET Fundamental Investment Model develops investments for SONET lightwave multiplexing equipment, associated circuit equipment, such as DSX panels, and the fiber facilities connecting the SONET equipment.

Illustrative Example Investment Calculations:

```
$50,000.00 Material Price
         1.01 TPI
×
    $50,500.00 Current Material Price
         1.075 In-Plant Factor
×
    $54,287.50 Installed Investment
          1.00 Quantity of Items
×
    $54,287.50 Total Installed Investment
       2,000 Unit Capacity
        27.14 Unit Investment
         1.250 Investment Inflation Factor
X
     $ 33.93 Levelized Investment
=
          .70 Utilization
    $ 48.47 Study Period Investment
          .50 Probability of Occurrence
×
        24.24 Total Investment
         24.24 Total Investment
         .11 MCE&P Factor
X
        2.67 MCE&P Investment
     $ 24.24 Total Investment
                              $ 24.24 Total Investment
    $ 2.67 MCE&P Investment + $ 2.67 MCE&P Investment
    $ 26.91
                                $ 26.91
=
     .0003 Land Factor × .0013 Building Factor
×
    $ .01 Land Investment = $ .03 Building Investment
```

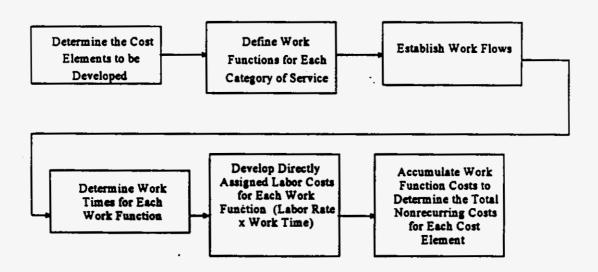
FLORIDA UNBUNDLED LOOP

COST DEVELOPMENT - NONRECURRING

Nonrecurring costs are one-time costs incurred as a result of provisioning, installing, disconnecting and completion of orders initiated by a customer request for the Unbundled Analog Loops. The Nonrecurring Cost Study is performed to determine the service order, provisioning and disconnect costs associated with the cost element listed above. Calculations for the nonrecurring costs are included in this section.

Figure 5-1 shows a generalized flow of the steps necessary for developing nonrecurring costs. Each part of this flow will be explained in more detail in this section.

Figure 5-1
Generalized Flow Diagram for Developing Nonrecurring Costs



The first step in developing nonrecurring costs is to determine the cost elements to be studied. Each cost element is then described by all of the individual work functions required to provision the element. An example of a work function is the designing of a circuit in the Circuit Provisioning Group.

The work functions required to provide the Unbundled Analog Loops can be grouped into four categories. These are:

- 1) Service Order
- 2) Engineering
- .3) Connect and Test
- 4) Technician Travel Time

Work functions included in these categories range from clerical activities to installation activities.

The next step in developing nonrecurring costs requires that Company subject matter experts identify the work functions involved in the provisioning of the Unbundled Analog Loops (an example of a work function is making a cross-connect in the central office). These work functions are then used to describe the flow of work within the various work centers involved in provisioning the element.

The next step in the development of nonrecurring costs is to determine work times for each work function associated with the nonrecurring costs of the Unbundled Analog Loops. The work times of the various work groups are determined from Subject Matter Expert inputs. Each work time estimate is made by a subject matter expert who thoroughly understands how each activity is done.

A spreadsheet model is used to incorporate the specific work functions and labor rates. In order to arrive at the nonrecurring cost for the element studied, the work times for each work function required is multiplied by the appropriate labor rate. The labor inflation factors (LIF) are used to bring the labor rate to the study period. The levelized labor rate is expressed on a per minute basis, as are the worktimes. The labor rates and the labor inflation factors are shown in Section 7. Next, the individual work function costs are accumulated into the total cost for the cost element studied.

To recognize cost reductions on orders with loops, costs are calculated separately for the first and additional system and/or interface. "First" refers to the first item on a service order. "Additional" costs are the incremental costs of providing one or more duplicates of the item on the same service order at the same time as the first.

The basic process by which nonrecurring costs are calculated consists of combining unit work times with hourly costs of each specific service category. These work times, and service order related work times, are multiplied by the directly assigned labor rates for the work groups performing the activities.

Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as the installation costs. Since the labor costs will occur in the future, the current labor

rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

The following workpapers reflect the cost development.

SUMMARY OF NONRECURF	RING COSTS	STATE: WORKPAPER: PAGE: DATE:	FLORIDA 700 1 OF 1 Aug-96
2 WIRE ANALOG VOICE GR	ADE LOOP		
(1996-1998 Level Incremen	tal Costs)		
Д	В	C	\mathcal{D}
1 DESCRIPTION	SOURCE	<u>FIRST</u>	<u>ADDTL</u>
2 3 Service Order 4	WP750 Col G LN8		
5 Engineering 6	WP750 Col G LN10 and LN1:	2	
7 Connect & Test 8	WP750 Col G LN14 thrU LN1	8	
9 Technician Travel Time 10 11	WP750 Col G LN20		
12 Total Nonrecurring Cost 13 14	Sum of L3, L5, L7, L9		
15			
16			
17 18			
19			
20			

(

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SUMMARY OF NONRECUR	RING COSTS	STATE: WORKPAPER: PAGE: DATE:	FLORIDA 800 1 OF 1 Aug-96
4 WIRE ANALOG VOICE GF	ADE LOOP		
(1996-1998 Level Incremen	ntal Costs)	_	
A	В	C	D
1 DESCRIPTION	SOURCE	<u>FIRST</u>	<u>ADDTL</u>
2 3 Service Order	WP850 Col G LN8		
4 5 Engineering 6	WP850 Col G LN10 and L	N12	·
7 Connect & Test 8	WP850 Col G LN14 thrU I	_N18	
9 Technician Travel Time 10 11	WP850 Col G LN20		
12 Total Nonrecurring Cost 13	Sum of L3, L5, L7, L9		
15			
16			
17 18			
19			
20			

· 24

DEVELOPMENT OF NONRECURRING COST 4 WIRE ANALOG VOICE GRADE LOOP LEVEL 1996 1998	DIRECTLY ASSIGNED	o.	STATE: WORKPAPER: PAGE: DATE:	FLORIDA 850 1 OF 1 Aug-96
1 2 3 4 5 <u>DESCRIPTION</u> 6	(A) INSTALL WORKTIMES (HRS) W FIRST ADDTL	(B) (C) DISCONNECT LEVELIZED /ORKTIMES (HRS) LABOR FIRST ADDTL RATE	COST (E*DOF) T	(G) (D+F)*(1+GRT) OTAL TOTAL FIRST <u>ADDIL</u>
7 8 CUSTOMER POINT OF CONTACT—ICSC 9 10 FACLITIES ASSIGNMENT—FACS 11 12 CIRCUIT PROVISIONING CENTER—CPC 13 14 NETWORK ADMINISTRATION 15 16 CO INSTALL & MTCE—CKT & FAC—NTEL 17 18 INSTALL & MTCE—SPEC SVCS—SSIM (CONN & TES 19 20 INSTALL & MTCE—SPEC SVCS—SSIM (TRAVEL) 21		\$40.80 \$33.32 \$36.65 \$35.03 \$41.64 \$44.15	·	
22 23 TOTAL NONRECURRING COST				

SUM	MMARY OF NONRECURRING COS	STATE: WORKPAPER: PAGE: DATE:	FLORIDA 410 1 OF 1 Jul-96	
2 W	IRE ISDN UNBUNDLED LOOP			
	A A	B	C	D
1 2	DESCRIPTION	SOURCE	FIRST	ADDTL
_	Service Order	WP850 COL G L8 THRU L10		
-	Engineering	WP850 COL G L12 THRU L16		
	Connect & Test	WP850 COL G L18 THRU L28		
9 10	Technician Travel Time	WP850 COL G L28		
11 12 13 14	Total Nonrecurring Cost	L3+L5+L7+L9		
15				
16 17				
18				
19				
20				

DEVELOPMENT OF MONRECURRING COST 2 WARE ISON UNBUNDLED LOOP

LEVEL 1994 - 1996

DIRECTLY ASSIGNED

STATE: WORKPAPER: PAGE: DAYE:

FLORUDA 468 1 OF 1 Jul-36

1 2 3		(A)	(B) DISCONNECT	(C) LEVELIZED LABOR	(D) INSTALL COST (A°C)	(E) DISCOMMECT COST (B°C)	(F) DISCOUNTED DISCOUNECT COST (E*DDF)	(G) (D+F)*(1+GRT) TOTAL TOTAL
5	DESCRIPTION	WORKTIMES (HRS) FIRST ADDIL	WORKTIMES (HRS) FIRST ADDIL	BALE	EIRSI ADDIL	FIRST ADDIL	EIRȘI ADDIL	ERSI ADDIL
6 7				***		77.7H	=	· - -
9 (CUSTOMER POINT OF CONTACT (ICSC)	•		\$40.80	f			
10 t	NSTALLATION & MITCE CENTER (IMC)	Ø	B	\$35.97			3	
12 (CIRCUIT PROVISIONING CENTER (CPC)	J		\$35.87		2		
	ACILITIES ASSIGNMENT (FACS)			\$33.31				
	OUTSIDE PLANT ENGINEERING (OSPE)	Ì	2	544 02			1	
	CO ADMIN CKT, CARRIER & FAC (NTEC)	Ĺ	2	\$30 82				
	NETWORK PLUG-IN ADMINISTRATION (PICS)	Ī	X	\$40.54	•		B	
-	ETWORK SERVICES-CLERICAL	1		\$33.56				
	PECIAL SERVICES COORD & TESTING (SSC)	Ī	2	\$30.19			•	
25 28 I 27	NSTALL & MTCE - SPECIAL SERVICES (SSIM)	1	2	\$41.95	1	1		
	NSTALL & MTCE - SPECIAL SERVICES (SSIM)	1	1	\$41.05		4	l	邀
30	TOTAL NONRECURRING COST			i.				4
32	CONT HERBICCONTINUO COST							Z
33 34			•					
36 36			•					
37			•					
39								
41								
43								
44 45								

FLORIDA UNBUNDLED LOOP

SPECIFIC STUDY ASSUMPTIONS

The cost study for the Unbundled Loops for the state of Florida is based on incremental economic theory and assumptions, plus specific Network deployment strategies, first choice provisioning guidelines, and equipment purchasing information.

Cost study assumptions are as follows.

- 1. Forward-looking technology is represented in the following manner:
 - . for all loops up to 12,000 feet, the feeder sections will be copper placements
 - . for all loops greater than 12,000 feet, the feeder sections will be fiber placements
 - . all distribution sections of the loop will include a mix of 22, 24, 26 gauge copper cable
- 2. Utilization of cable segments is applied as follows:

Cable Pair/Strand Utilization

20	copper (SLC)	utilization
21	copper (feeder)	utilization
22	copper (dist'n)	utilization
23	fiber (feeder)	'utilization
24	fiber (dist'n)	utilization

- 3. Study period of 1996 to 1998 based on 1995 investments and factors
- 4. The cost of money applied is 13.2%

PLORIDA UNBUMDLED LOOPS

FACTORS AND LOADINGS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the 2-Wire Analog Voice Grade Loop, the 4-Wire Analog Voice Grade Loop, and the 2-Wire ISDN Digital Loop.

Florida Unbundled Loop

Factors and Loadings

	Factors and Loadings	3	
	A	В	
	Miscellaneous Loadings (see attached data	abase v	orksheet)
4	Computer Regional Monthly Systems Cost	S	
50	Distributing Frame Weighted Monthly Cost	2	(2-wire) (4-wire)
	TIRKS Regional Annual Expense Factor	.00	52
	Sales Tax	.06	
	Annual Cost Factors: (see attached spr	eadshe	et)
	Gross Receipts Tax Factor	0.0	L52
	Discounted Disconnect Factor 2-Wire Analog Voice Grade Loop 4-Wire Analog Voice Grade Loop 2-Wire ISDN Digital Grade Loop	0.90 0.89	961
	1995 Directly Assigned Hourly Labor Rates		
	Customer Point of Contact (ICSC) CO Install & Maintenance (NTEL) Circuit Provisioning Group (CPG) Network Admin Facilties Assignment (FACS) Install & Mtce - Spec Svcs (SSIM) Outside Plant Engineering Spec Svcs (NICS) CO Admin Ckt, Carrier & Fact (NTEC) Network Planning & Eng (PICS) Network Services Clerical Special Svc Coord & Testing (SSC) Outside Work Group Ded Spec (DSS) Labor Inflation	\$38. \$39. \$34. \$31. \$41. \$45. \$36. \$41. \$30. \$36. \$41.	09 41 89 28 45 26 72 05 65 21
	Telco Eng Year 1 Year 2 Year 3 Telco COE Year 1	3.41 3.81 3.61	; ;
	Year 2 Year 3	3.24 3.54 3.44	;

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EXCEPT UNDER WRITTEN AGGREEMENT

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Investment Inplant Factors

	۸	В	C	D	َ ج	F	G	H	<u> </u>
	70	5	- Descriptions	%Nonemampt	%Exempt	MTelco Eng	%Teles in	t %Labor-Contr	"Support
41	:2C	FL	Aertal Cable - Metailic (Entrance Cable)		·	All States		15.42	ij
	220	FL	Aenai Cable - Metallic					MARKET	[
-	18	FL	Aerial Cable - Metallic (Service Drop)					7950417	7
1	+3C	FL	Buried Cable - Metallic			N. S.			Ş
	52C	FL	Intrabildg Newk Cable - Metailic						រុ
	348	FL	Buried Cable - Metallic (Service Drop)	<u>- </u>					<u> </u>
ľ	5C	FL	Underground - Metallic					161211	5 i
	6C	FL	Submanne Cable - Metallic						
Ī	D12	FL.	Aenal Cable - Non-Metallic (Entrance Cable)					3000	¥
Ī	F12	FL.	Aenal Cable - Non-Metallic (Entrance Cable)						<u>}</u>
Ī	T12	FL	Aenal Cable - Non-Metallic (Entrance Cable)						Ĭ.
Ī	022	FL,	Aeriai Cable - Non-Metallic (Distr)			K-200			ļ
Ì	F22	FL	Aenal Cable - Non-Metallic (Feeder)			72.0		卷	<u>}</u>
٦,	T22	FL	Aenal Cable - Non-Metallic (Interofc)			17.5%		£15.7%	1
Ī	D45	FL	Buried Cable - Non-Metallic (Distr)			7734 1732		25.167×	<u>!</u>
Ī	F45	FL	Buried Cable - Non-Metallic (Feeder)					18254	į
ŀ	T45	FL	Buried Cable - Non-Metallic (Interofc)					AME OF	Į
ľ	D52	FL	Intrabidg Ntwk Cable - Non-Metallic (Distr)					P. Sept.	
İ	F52	FL	Intrabidg Ntwk Cable - Non-Metallic (Feeder)	,		200		No. of the last	
ļ	T32	FL.	Intrabidg Ntwk Cable - Non-Metallic (Interofc)					Parking.	
	D5C	FL	Underground Cable - Non-Metallic (Distr)					3.15.10	
- 1	F5C	FL	Underground Cable - Non-Metallic (Feeder)	i		1		323	
_		FL	Underground Cable - Non-Metallic (Interofc)					100	
	۶Ċ	-	Submanne Cable - Non-Metallic (Distr)	1				APART.	
	-	FL.	Submarine Cable - Non-Metallic (Feeder)	ą.		1964		A STATE OF THE STA	
9	T6C	FL	Submanne Cable - Non-Metallic (Interofc)				. 1]

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BellSouth Telecommunications, Inc FPSC Docket No. 960833-TP Exhibit No. DDC-8

FLORIDA



UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP

COST STUDY
DOCUMENTATION

SECTIONS A THRU 7

FLORIDA UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING
SECTION 5	COST DEVELOPMENT - NONRECURRING
SECTION 6	SPECIFIC STUDY ASSUMPTIONS
SECTION 7	FACTORS AND LOADINGS

SECTION A

SECTION A

FLORIDA UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP PROPRIETARY RATIONALE

The Florida Unbundled 4-Wire DS1 Digital Grade Loop Cost Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing this element on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage in that they would know the price or rate below which BellSouth could not provide the service. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies concerning access services. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth. For these reasons, the Florida Unbundled 4-Wire DS1 Digital Grade Loop Cost Study is considered proprietary.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Florida Unbundled Loop Cost Study is considered proprietary.

FLORIDA UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP

INTRODUCTION AND OVERVIEW

This Long Run Incremental Cost study for the Unbundled 4-Wire DS1 Digital Grade Loop in the state of Florida is being provided in response to Docket No. 950984-TP Order No. PSC-96-0444-FOF-TP Issued March 29, 1996.

The Unbundled 4-Wire DS1 Digital Grade Loop provides for simultaneous two-way transmission of isochronous digital signals at speeds of 1.544 Mbps. When the facility is used with a standard channel bank or direct integration equipment, it provides the equivalent of 24 voice grade channels. The facility extends from the network interface at the Alternative Local Exchange Company's (ALEC) customer premises to a DSX-1 cross-connect panel termination in the central office.

A long run incremental cost study considers the network architectures and technologies that will be used to provide the service being studied in the future. BellSouth Network provided the following five designs as representative of the forward looking network architectures which will be used to deploy DS1 service from the central office to a customer premises.

- ♦ Design #1 Central Office to Customer Premises on all copper
- ♦ Design #2 Central Office to Customer Premises on an OC-3 SONET Ring
- ♦ Design #3 Central Office to Customer Premises on an OC-3+ SONET Ring
- O Design #4 Central Office through an Intermediate Hub on an OC-3 SONET Ring to Customer Premises on a Copper Extension
- ♦ Design #5 Central Office through an Intermediate Hub on an OC-12 SONET Ring to Customer Premises on an OC-3 SONET Ring Extension

Recurring costs were developed for each design and then weighted by the probability of occurrence.

Recurring costs presented in this study are directly assigned, incremental and levelized so as to be appropriate for the 1996-1998 study period. Nonrecurring costs follow the same convention and represent 1996-1998 level costs also. These long-run incremental costs are developed by using 1995 level incremental loadings and annual cost factors based on 13.2% Cost of Money and directly assigned labor rates.

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PLORIDA UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting the Florida Unbundled 4-Wire DS1 Digital Grade Loop.

All costs are developed utilizing Long Run Incremental Cost methodology. In determining costs, direct incremental costing techniques are used that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to insure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and therefore are not Incremental costs include both recurring (capital and included. operating expenses) and nonrecurring (service provisioning) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for the Unbundled 4-Wire DS1 Digital Grade Loop is to determine the forward-looking network architecture. Material prices for the equipment are defined. Next, account specific Telephone Plant Indices are applied, when necessary, to trend investments to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor. The deployment probabilities, capacity, spare stock, and utilization of the equipment are also considered.

Plant account specific Investment Inflation Factors are applied to the installed investments to trend the base year, or study year, investments to levelized amounts that are valid for a three to five year planning period. Appropriate loadings for land, building and miscellaneous common equipment and power are then applied.

Next, 1995 level Florida Intrastate Incremental Annual Cost Factors are used to calculate the direct cost of capital (in this case, 13.2%), ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each USOA FRC) are applied to levelized investments by account code, yielding an annual cost per account code. These costs are then divided by twelve to arrive at a monthly cost per cost element.

THE DEVELOPMENT OF NONRECURRING COSTS

Nonrecurring costs are "one-time" costs incurred as a result of provisioning, installing, and disconnecting the Unbundled 4-Wire DS1 Digital Grade Loop. The first step in developing nonrecurring costs is to determine the cost elements related to the study. These cost elements are then described by all of the individual work functions required to provision the cost element. The work functions can be grouped into four categories. These are service order, engineering, connect and test, and technician travel time. The work function times, identified by subject matter experts, are used to describe the flow of work within the various work centers involved. Installation and provisioning costs are developed by multiplying the work time for each work function by the directly assigned 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. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

FLORIDA UMBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP SUNDARY OF RESULTS

This section contains a cost summary for both recurring and nonrecurring cost elements studied for the 1996-1998 Unbundled 4-Wire DS1 Digital Grade Loop for Florida.

FLORIDA UMBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP

SUMMARY OF RESULTS

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No disclosure outside BellSouth except by written agreement

FLORIDA UMBUNDLED 4-WIRE DE1 DIGITAL GRADE LOOP

COST DEVELOPMENT - RECURRING

This section defines the cost development of the recurring costs for the Florida Unbundled 4-Wire DS1 Digital Grade Loop.

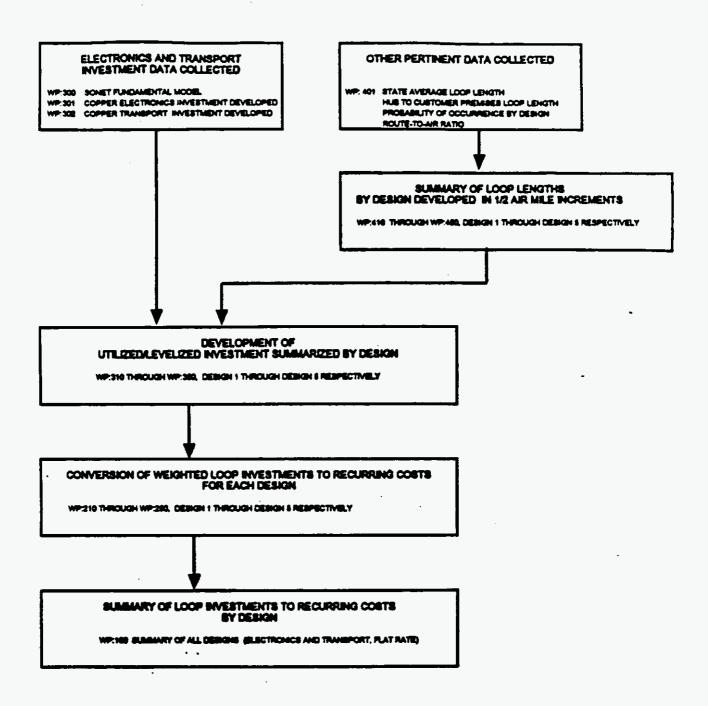
Generally, economic cost development is outlined in Section 2. Network architecture is determined, the necessary equipment is identified, material prices are obtained, factors, utilization and loadings are applied and the result is levelized for the study period. Annual cost factors are applied to convert the investment to cost.

Recurring costs are developed for each of the five network designs. The costs are developed for fixed electronics, which includes all hardwired and common plug-ins in the central office, any intermediate hubbing, and at the customer premises. The working DS1 cards are only included at the central office and customer premises. Recurring costs for the transport are also developed on a per half-mile which includes the fiber and all support structures.

Since the service is flat rated, a flat rate cost is developed for each design based on the average length of the local channel. The designs are weighted by probability of occurrence to determine the cost of the 4-Wire DS1 Digital Grade Loop offering.

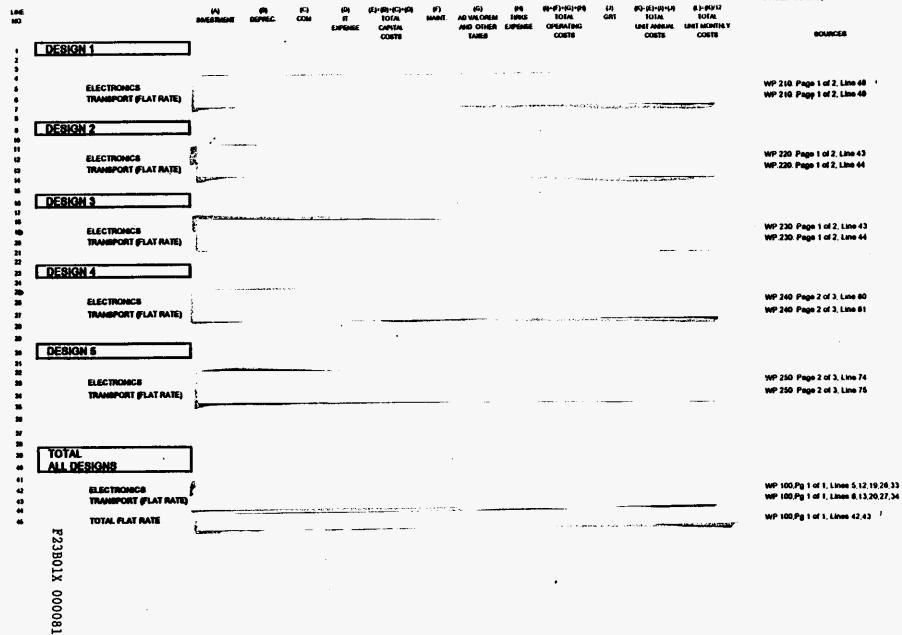
The following workpapers develop the investment, convert the investment to monthly costs, and summarize the results.

4-WIRE DS1 DIGITAL GRADE LOOP



SUMMARY

UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP 1908-1900 LEVEL STATE: FLORIDA WORKPAPER: 100 PAGE 1 OF 1 DATE: APRIL, 1996



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STATE FLORIDA WORKPAPER 230 PAGE 2 OF 2 DATE APRIL, 1886

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                                                                                                                                                                 WP-201, Page 1 of 2, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific analytical by WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) WP-PACTORS, Page 1 of 1, Linco 1 thus 12, Calaim (A) facel code specific (A) wa
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4
                                                   TOTAL PRETIBLE - RECTROSCE WP264 Page 1 of 2 Line 7 (Calone (4) Grade (4) (mingray speeds)
120
                                                       TOTAL PROT HOLF LELE - TRANSFORT | MP.200, Page 1 of 2 Line 22 (Colone (A) See § ) juniques question
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130
                                               101AL RECORD HALF ARLE - TRANSPORT - MP 304 Page 1 of Line 22 (Colone (4) for (1) (colony specific)
120
136
                                                                 TOTAL PLAT PLATE - BECTRONCO WP214 Page 6 of 2 Line 7 (Column (4) three (4) Indepeny speeding
TOTAL PLAT PLATE - TRANSPORT WP214, Page 6 of 2 Line 22 (Column (4) three (4) ordering speedic analytical by MP2144, Line 10
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127
 13
                                                                           PROBABLITY OF OCCURRENCE - WP-691, Prop. 1 of 1, Line 16
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WP:250, Page 2 of 3, Line 52 (Column (A) thru (L) (category specific) multiplied by WP:250, Page 2 of 3, Line 64
WP:250, Page 2 of 3, Line 53 (Column (A) thru (L) (category specific) multiplied by WP:250, Page 2 of 3, Line 64
  130
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 141
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		А	B	0	
LIME					STATE FLORIDA
NO	DESCRIPTION		UTILIZED/LEVELIZED		WORKPAPER 300 PAGE I OF 3
		ACCT NO.	INVESTMENT	SOURCES	DATE APRIL 1985
1	ELECTRONICS	257C		FUNDAMENTAL SONET MODEL	CALL AFTER, ISS
2	Battery Back-up - OC3 (CP) CO Node - OC3	257C 257C		POREMENTAL SCHOOL MODEL	
3	MCE & P	257C		•	
4	Land	20C		•	
•	Building	10C		•	
•	CO Node - OC12	257C		•	
•	MCE & P	257C		•	+
•	Land	20C		•	•
10	Building	10C		•	
	CP NODE - OC3 :	257C		•	
11 12	CO INT. DS1 ON OC-3 DIRECT	257C		•	
	MCE & P	257C		-	
13 14	Land	20C		•	
	Building	10C		•	
16 18	CO INT. DS1 ON OC-3 JOINT	257C		•	•
	MCE & P	267C		•	
17 18	Land	20C		•	
10	Building	10C		-	
20	CP INT. DS1 ON OC-3 DIRECT	257C		•	
21	CP INT. DS1 ON OC-3 JOINT	257C		•	
22	CO DS1 ON OC-12 DIRECT	257C		•	
23	MCE & P	257C		•	
24	Land	.20C		•	
25	Building	10C	•	•	
26	CO DS1 ON OC-12 JOINT	257C		•	
27	MCE & P	257C		•	
28	Land	20C		•	
28	Buildina	10C		•	
39	CO DATA COMMUNICATIONS OC-3	257C		•	
31	MCE & P	257C		•	
12	Land	20C		•	
33	Building	10C		· ·	
34	CO DATA COMMUNICATIONS OC-12	267C		<u> </u>	
36	MCE & P	257C		<u>.</u>	
30	Land	20C			
37	Building	10C		•	
36	CP NETWORK INTERFACE	257C			
30	HUB INTERFACE STS-1 OC3	257C			
40	MCE & P	257C		•	
41	Land	20C			
42	Building	10C		•	

		Α	B	0
LINE			_	6
NO.	DESCRIPTION		UTILIZED/LEVELIZED	
		ACCT NO.	INVESTMENT	BOURCES
43	HUB INTERFACE STS-1 OC12	257C		FUNDAMENTAL SONET MODEL
44	MCE & P	257C		•
45	Land	20C	•	•
46	Building	10C		
47	CP BUILDING ENTRANCE CABLE OC3	812C 812C		- -
48	CP BUILDING ENTRANCE CABLE OC12	257C		•
49	CO INTERFACE DS1 ON OC3 (FLM) DIRECT	257C 257C		•
50	MCE & P	20C		•
51	Land	10C		•
82	Building CO INTERFACE DS1 ON OC3 (FLM) JOINT	257C		•
63	MCE & P	257C		•
54 56	Land	20C		•
**	Building	10C		•
57	CO NODE OC3 (FLM)	267C		•
44	MCE & P	257C		•
50	Land	20C		•
	Building	10C		•
6 1	CP INTERFACE DS1 ON OC3 (FLM) DIRECT	257C		· .
62	CP INTERFACE DS1 ON OC3 (FLM) JOINT	257C		• .
43	CP NODE OC3 (FLM)	257C		•
84	HUB CONN STS-1 ON OC-3 DIRECT (FLM)	257C		•
66	MCE & P	257C	•	•
	Land	20C 10C		•
67	Building	257C		•
*	HUB INTERFACE DS1 ON OC-3 DIRECT	257C		•
•	MCE & P	20C		•
70	Land Building	10C		•
71	HUB INTERFACE DS1 ON OC-3 JOINT	257C		•
73	MCE A P	257C		•
74	Land	20C		•
76	Building	10C		•
76	HUB INTERFACE DS1 ON OC-3 DIRECT(FLM)	257C		•
77	MCE & P	257C		<u>.</u>
78	Land	20C		
79	Building	10C		•
80	HUB INTERFACE DS1 ON OC-3 JOINT(FLM)	257C 257C		•
- 1	MCE & P	20C		•
#2	Land	10C		
83	Building	100		

STATE FLORIDA WORKPAPER 300 PAGE 2 OF 3 DATE APRIL 1995

		Α	B	
LINE			•	
MO.	DESCRIPTION	ACCT NO	UTILIZED/LEVELIZED	
	•	ACCT NO.	eves (ach)	SOURCES
84	HUB NODE-OC3	257C		FUNDAMENTAL SONET MODEL
86	MCE & P	257C		•
•	Land	20C		•
87	Building	10C	V.	•
86	HUB NODE-OC3 (FLM)	257C		•
80	MCE & P	257C		•
60	Land	20C		•
0 1	Building -	, 10C		-
82	HUB NODE-OC12	257C		•
83	MCE & P	257C		•
84	Land	20C		•
96	Building	10C		•
67	TRANSPORT			
96	FIBER - OC3 PER MILE PER STRAND			
	POLE	1C		•
100	AERIAL FIBER	822C		•
101	BURIED FIBER	845C		•
102	CONDUIT	4C		•
163	UNDERGROUND FIBER	85C		•
101	FIBER - OC12 PER MILE PER STRAND AND FLM 15	0+		
105	POLE	iC		•
105	AERIAL FIBER	822C	•	•
107	BURIED FIBER	845C		•
100	CONDUIT	4C		•
100	UNDERGROUND FIBER	85C		•
110				

111

STATE FLORIDA WORKPAPER 300 PAGE 3 OF 3 OATE APRIL, 1805

	****	MISCLOAD LEVELIZED UTL WATEN WITH LOADINGS	0.0030	0.0159 0.0030 0.0404	0.0962			
	(C)-(E)ME)		٠.	1	ł			
	ŝ	86-98 LEVELIZED UTLIZATION LEVELIZED WITH BNV MAKESTIMENT BEFORE LOADINGS	8	28.0	SE	0.70		ALYSIS DEPT.)
	(Ep-Cyrid)			A A CONTRACTOR OF THE CONTRACT			,	METWORK ECONOMIC ANALYSIS CALCULATION PHOTE: BLDG ENTRANCE CABLE SOURCE WAS ECONOMIC ANALYSIS DEPT.) ECONOMIC ANALYSIS CALCULATION ACTIVITIES ACTIVITIES CALCULATION CONOMIC ANALYSIS CALCULATION CONOMIC ANALYSIS CALCULATION PHOTE: 20C AND 10C LOADINGS WERE BASED ON TOTAL 281C PER CATEGOR
	•	PELATION	0.962	7900	1.012	1.06		OURICE WAS E
¥	(C)-W/B)	INSTALLED INV	39 -		· ·			NCE CABLE SO
INVESTME	£	IN PLANT FACTOR	1.2107	1.2107	1.36.1	i		ALDG ENTRA
UTILIZED	3	MATERIAL PRICE PER TS				l		METWORK ECCHONIC ANALYSIS CALCULATION BIOTE: BLDG ENTRANCE CABLE SOURCE WAS ECONOMIC ANALYSIS DEPT.) CALCULATION BIOTE: BLDG ENTRANCE CABLE SOURCE WAS ECONOMIC ANALYSIS CALCULATION CALCULATION ECONOMIC ANALYSIS ECONOMIC ANALYSIS CALCULATION CALCULATION CALCULATION CALCULATION CALCULATION CALCULATION BIOTE: 20C AND 10C LOADINGS WERE BASED ON TOTAL 281C PER CATEGORY)
EVELIZED,		1 00	287C 287C 280C 280C	257C 257C 260C	377C 377C 377C 377C 377C 50C	130		 7
DEVELOPMENT OF COPPER ELECTRONICS LEVELIZED, UTILIZED INVESTMENT		-	REBUSE DISK-1 PANEL	OFFICE REPEATER BAY	ğ	CLISTOMER PREMISES BLDG ENTRANCE CABLE	SONICE	COLLAND COLLAN
EVELOPMENT 0		LINE NO. DESCRIPTION	CENTRAL OFFICE 1 2 4			22 CUSTOM	222	F23B01X 00009

STATE FLORIDA WORKPAPER 302 PAGE 1 OF 1 DATE APRIL 1986

DEVELOPMENT OF COPPER TRANSPORT LEVELIZED, UTILIZED INVESTMENT

MA.	24 GAUGE COPPER CABLE	ACCT CODE	INSTALLED INV PER PAIR PER FOOT	2 PAIR PERFOOT	(2-64-200 NOV PER 1/2 MILE (2040 * (61))	DIST TO CODE	EI TEIPE COPPER CABLE WEIGHTED INVESTMENT	ADJ FOR AIR DRYER	FG-EXTACTOR AQJ FOR DROP WIRE	64-81-61-44 COPPER CABLE WEIGHTED WATSTMENT WITH ACU	POLE/CONDUIT FACTOR	UHAYE) POLEICONDUIT IMMESTMENT
1 2 3 4 6	AERIAL BURIED UNDERGROUND POLE CONDUIT	22C 45C 5C 1C 4C	ť		*	0.152777 0.633434 0.213285 1	·	N/A N/A N/A	*	\$	0.2522 0.3805	•
7 8 10 11	AIR DRYER OROP WINE ADJ.		0.141283									
12 13 14 16	REPEATER	•	**	DIST TO CODE	AO-ARYLI REPEATER WEIGHTED HAVESTIMENT							
16 17 16 10 20 21	AERIAL BURIED UNDERGROUND	257C 257C 257C 257C		0.152777 0.433636 6.213265 1								
22 23 24 25 26 27	COPPER TRAMPORT I	LEVELIZED ACCT	LITH LIZED MAN	EATMENT:	BLEMMARY 67-4474 TOTAL BASE YR	(D) TALAM	* PR-FYVR		(I)-PEYE	A+ LSTELZATION	M-CI)YA UTBAEV	
20		,	PER DOI	***	IN PER COI	JA C-1,	MENTMENT	INFLATION FACTOR	HMESTMENT	FACTOR	INVESTMENT PER DS1 & PER 1/2 MILE	
31	•	267C		1		1.2107					HAVESTMENT	251C
20	REPEATER AERIAL BURIED UNDERGROUND POLE CONDUIT							FACTOR		FACTOR	HAVESTMENT	257G 22C 45G 5G 1C 4G
20 21 22 24 24 25 26 26 26	REPEATER AERIAL BURIED UNDERGROUND POLE CONDUIT	267C 22C 46C 8C 1C 4C		1 1 1		1.2107 NIA NIA NIA NIA NIA		FACTOR 0.002 1.001 1.000 1.010 1.012 1.014		9.85 9.70 9.70 9.70 9.70 9.70	INVESTMENT PER DOI & PER IZ INLE	22C 45C 5C 1C

	RAMESTAGES SOUCES	WP:301, Page 1 of 1, Line 1 WP:301, Page 1 of 1, Line 2 WP:301, Page 1 of 1, Line 3 WP:301, Page 1 of 1, Line 4	WP.301, Page 1 of 1, the 7 WP.301, Page 1 of 1, the 8 WP.301, Page 1 of 1, the 8 WP.301, Page 1 of 1, the 9	WP.201, Page 1 of 1, Line 18 WP.201, Page 1 of 1, Line 19 WP.201, Page 1 of 1, Line 20 WP.201, Page 1 of 1, Line 21	WP:301, Page 1 of 1, Lbm 25 WP:300, Page 1 of 3, Lbm 36	SUM WP310, Page 1 of 2, Lines 12,7 A.24 SUM WP310, Page 1 of 2, Lines 13,14 SUM WP310, Page 1 of 2, Lines 3,6,15 SUM WP310, Page 1 of 2, Lines 3,6,16 SUM WP310, Page 1 of 2, Line 22
INBUIDLED 4-WIRE DSI DICITAL GRADE LOOP	PERIOR # 1 PLECTRONIC LIVERTHENTS AACT AACT COOS	DEXT PANEL 237C MASSAP 257C LAND 26C BUILDING 16C	OFFICE REPEATER BAY 257C MCRAP 257C LAND LAND BURLING 100	MANN DISTRIBUTION FRAME STTC MCSAP 177C LAND BUILDING CUSTOMER PREMISES - FLACTHONICS	BALDG ENTRANCE CABLE - COPPER 12C NETWORK INTRAFACE 257C	TOTAL RESCRIPTION OF BY PIC. 2572 262 263 264 265 265 267 267 267 267 267 267
5 2	## 3	- ~ ~ *			**************************************	

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STATE: FLORIDA WORKPAPER: 310 PAGE 2 OF 2 DATE: APRIL, 1996	SOUNCES COLUMN B	WP.401, Page 1 of 1, Line 22	of 2, Line 56
	SOURCES COLUMN A	WP:302, Page 1 of 1, Line 34 WP:302, Page 1 of 1, Line 37 WP:302, Page 1 of 1, Line 36 WP:302, Page 1 of 1, Line 36 WP:302, Page 1 of 1, Line 35 WP:302, Page 1 of 1, Line 35	WP-310, Page 2 of 2, Line 56
(C)-(A)*(B)	TOTAL BAYESTABAT FIRE AN WALE (AR MALEN)		
. ê	TO TO WELL	5.5.5.5.5	
3	TOTAL BIVESTARDIT SUBLIZI BILIZI (SEBA STUDIL)		
	ACCT	5 5 5 5 5 E	
UNBURDLED 4 WIRE DES DECITAL CRADE LOOP 1996-1990 LEVEL. DESIGN # 1 TRANSPORT LEVESTABITS	CENTRAL OFFICE TO CHATOMER PRESCRIP	ASTIAL COPPER LINCISCOPPER LINC	3 8 1

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	SLIM WP:310, Page 2 of 2, Line 67 line 17	
265		STATISTICAL PACES

FWP:310, Page 2 of 2, Line 80 WP.310, Page 2 of 2, Line 61

WP:310, Page 2 of 2, Line 50

8 5 8 8 8

AN TOTAL TEANSPORT BY FEC.

WP:310, Page 2 of 2, Line 57 WP:310, Page 2 of 2, Line 56

F23B01X 000100

767 TOTAL DEBON ON TRA

TO DESTRUCTION OF

INBINDEED + MIRE DEI DICILYT CRYDE 1006

72A27 R61 9661

SW1

CERLIEVE OBSICE - ELECTRONICS

TECHNOLOGICAL STREET DESIGN \S

INSTITUTENT SOMECES CHAINED 3000 **TEAETISED** TOOM B A

STATE TC ant J.C to I aged ,000 9M 323C WP 300, Page 1 of 3, Line 30 323C DATA COMMA LINEK - OCT **J01 DNICTENE** 94P-300, Page 1 of 3, Line 6 WP 300, Page 1 of 3, Line 6 300 GNVI MCEVE WP 300, Page 1 of 3, Late 4 SIST 3230 CO NODE - OC3 Cent, Cloir age9, 000.9W Of emil ,C to I aged ,000 9W 201 ONKITETIE WP: 300, Page 1 of 3, Line 18 JOC DIVI Tr set J.C to I aged ,000 9W AVE:TH RIC MP 300, Page 1 of 3, Line 16 SESE DELON OCH - JOHNT MP-300, Pege 1 of 3, Line 15 **301** DISTRICT MP 300, Page 1 of 3, Line 14 JUC. GMA. WP 300, Page 1 of 3, Line 13 SINC 473071 WP 300, Page 1 of 3, Line 12 3230 D2I ON OC3 - DBEECL

DETE

301

JUL.

SINC

STAC 323C

\$13C

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STATE

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ME:300' bede 1 of 3' Fase 30 WP. 300, Page 2 of 3, Line 47 MP:300, Page 1 of 3, Line 21 WP:300, Page 1 of 3, Line 20 WP:300, Page 1 of 3, Line 11 multipled by 6

MP 300, Page 1 of 3, Line 33

SC and , C to 1 agen, , DOS. MW

Mb:200' bets J of 2' rise 2

SUM WP:320, Page 1 of 2, Line 29 91,41,8,5 aoni.1,5 to 1 ege/1,052;4W MUB SUM WP:320, Page 1 of 2, Lines 3,6,13,18 66,16,15,25,65,51,81,21,11,1,8,5,1 senial,5 to 1 egaq ,05c,9W Mula

DATE: APRIL 1996

MOUNTANNER 320 STATE: FLORIDA

PAGE 1 OF 2

SUM WP:320, Page 1 of 2, time 38 thru 42.

19 LOAVE EFECTIONIC INVESTIGATION BY FRE SALTINE YARTTAE HELMORK SKIRBINGS STDO HILLSVICE CVITE - OCH DELON OCS - JOHNT DELONOCO - DELECT C& HODE - OCS (2 Meges) - SANDALLY IN PROPERTY BENDERING ä DISCIPLING CHYT 51 Ħ Eŧ

LOLVE DESIGN 3 ETECLISONIC INVESTMENT

0000101 F23B01X

43

27

1/2 MILE (AIR MILE)

STATE: FLORIDA WORKPAPER: 330 PAGE 1 OF 2 DATE: APRIL, 1996

٠.

1994-1990 LEVEL B A DESIGN #3 LICTROSSIC INVESTMENTS LEVELIZED ACCT SOURCES LINE UTILIZED CODE NO. MARRIMENT CENTRAL OFFICE - ELECTRONICS (FLM 1994) WP.300, Page 2 of 3, Line 49 257C DSI ON OC3 - DIRECT WP:306, Page 2 of 3, Line 60 257C MCEAP WP:300, Page 2 of 3, Line 51 **20C** LAND WP.306, Page 2 of 3, Line 52 10C **BLULDING** WP:300, Page 2 of 3, Line 63 257C DSI ON OC3 - JOINT WP:300, Page 2 of 3, Line 64 257C WP:300, Page 2 of 3, Line 55 MCEAP 20C LAND WP.366, Page 2 of 3, Line 56 10C BUILDING WP:300, Page 2 of 3, Line 67 257C WP:300, Page 2 of 3, Line 58 CO NODE - OC3 257C WP:300, Page 2 of 3, Line 50 MCEAP 28C WP:306, Page 2 of 3, Line 60 LAND 13 Lec BUILDING WP 300, Page 1 of 3, Line 30 217C DATA COMM LINK - OC3 WP 306, Page 1 of 3, Line 31 18 257C WP.306, Page 1 of 3, Line 32 MCEAP 17 20C WP:366, Page 1 of 3, Line 33 LAND ICC DIMEDENG. CUSTOMER PREMIERS PLECTRONICS - (FLMISE) WP:300, Page 2 of 3, Line 63 multiplied by 5 21 257C CP NODE - OC3 (5 Nodes) 23 # WP:366, Page 2 of 3, Line 61 257C DALON OC3 - DESCT 25 WP:300, Page 2 of 3, Line 62 237C D&1 ON OC3 - JORIT 27 WP:300, Page 2 of 3, Line 48 BIZC BLDG ENTRANCE CABLE - OC12 WP.300, Page 1 of 3, Line 34 257C NETWORK INTERPACE 31 WP 300, Page 1 of 3, Line 2 257C BATTERY BACK-UP 33 * TOTAL ELECTRONIC INVESTMENT BY FRC SUM WP:330, Page 1 of 2, Lines 1,2,6,7,11,12,16,17,23,25,27,31,33 37 257C SUM WP:330, Page 1 of 2, Lines 3,8,13,18 38 20C SUM WP:330, Page 1 of 2, Lines 7,9,14,19 LOC F23B01X 000103 SUM WP:330, Page 1 of 2, Line 29 612C 41 SUM WP:330, Page 1 of 2, Lines 37 thru 41 42 TOTAL DESIGN 3 ELECTRONIC INVESTMENT 43

UNBUNDLED 4-WIRE DSI DIGITAL GRADE LOOP

UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP 1994-1990 LEVEL

51

62

DESIGN #3 TRANSPORT INVESTMENTS

STATE: FLORIDA WORKPAPER: 330 PAGE 2 OF 2 DATE: APRIL, 1996

CENTRAL OFFICE TO CUSTOMER PREMISES OC 3.0	ACCT CODE	(A) DIVESTMENT PER MILE PER STRAND (ROUTE MALES)	(B)=(A)/2 RIVESTMENT PER 1/2 MMLS PER STRAND (ROUTE MMLSS)	SOURCES COLUMN (A)			SUPPLES COLUM	NAN .
	223C			WP:300, Page 3 of	3, Line 106		Calculation	
AFRIAL FIDER	IC.			WP:300, Page 3 of			•	
POLE	asc			WP:300, Page 3 of			-	
UNDERGROUND FINER	4C			WP:300, Page 3 o	3, Line 106		•	
CONDUIT	845C			WP:300, Page 3 o	13, Line 107		•	
BLEED FREER	ACCT CODE	(C) BIVESTMENT PRE 1/3 MILS PRE STRAND (BOUTE MILES)	(D) TOTAL MANGES OF STRANDS FER ARRANGEMENT	PER 1/2 MALE PER	(P) BOUTS TO AIR BATIO	(G) = (E) * (F) TOTAL BIVESTMENT PER UZ MME PER ABRANGEMENT (AM MMLES)	SOURCES	
TOTAL TRANSPORT - OC 3 FLM150+			•		1.43		COLUMN (C)	Calculation
STANDARD ARRANGINGENT BY FRC	822C		3		1.43		COLUMN (D)	Network
	1C		3 3		1.43		COLUMN (E)	Calculation
	85C		3		1.43		COLUMN (F)	WP:401, Pg 1 of 1, Ln 22
•	4C		3		1.43		COLUMN (G)	Calculation
	\$45C				• • • •			
TOTAL TRANSPORT - OC 3 FLMISO			•		1.43			
DIVERSITY ARRANGEMENT BY FRC	623C		3		1.43			
1	1C		3		1.43			•
1	85C		3		1.43			
)	4C		3		1.43			
	845C		,					
	822C							, Page 2 of 2, Lines 82,90
TOTAL TRANSPORT BY FRC (6 STRANDS)							SUM WP:330	, Page 2 of 2, Lines 63,91
•	IC						SUM WP:330	, Page 2 of 2, Lines 84,92
90	85C							Page 2 of 2, Lines 85,93
D1	4C							Page 2 of 2, Lines 86,94
02	845C						_	, Page 2 of 2, Linus 96 thru 10:
04 TOTAL DESIGN 83 TRANSPORT INVESTMENTS 05 1/2 MILE (AIR MILE)					•		Pow M. 330	i, E miles & ac &, career on an a to-

			9 70 mm 4 5	kJ ,& to 1 ege9 ,016 9W MJ2				000105	
				TO THE PERSON OF CHARMES			TOTAL DESIGN 4 ELECTRONIC INVESTIMENT	ŏ	**
			• 53	8174 WP 340, Page 1 of 3, Lin		130		*	**
i				8LM WP 340, Page 1 of 3, Lh		301		F23B01X	*
				8LM WP.340, Page 1 of 3, La				33	29
				BUT OF GOOD CONTRACT OF CONTRACT CONTRA		300		F.2	19
			× 2> 9> €1 11 2 € 1	with the fames obt. GW MAIS		SUST			•
							TECLINOMIC INABBLITANT BY THE	TOTAL E	•
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SYATE FLORIDA								1997-1998 FEART	
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DENICH PE TEAMOPORT INVESTMENTS		•						WORKPAPER PAGE 3 OF 3 DATE APRIL
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AERIAL FIBER	822C	1	۲ ,	WP.300, Page 3 o	f 3, Line 100		Calculation	*
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UNDERGROUND FIBER	85C	\$		WP:388, Page 3 o	f 3, Line 103		•	
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Burred Finer	apsc	į.	•	WP:360, Page 3 o	f 3, Line 101		•	
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•	1C					1 1	SUM WP 350, Page 3 of	3, Lines 114,122
	85C						SUM WP 350, Page 3 of	3, Lines 115,123
	4C			·			SUM WP 360, Page 3 of	
	845C						SUM WP 150, Page 3 of	
HUB TO CP DESIGN AS TRANSPORT INVESTMENTS IN MILE (AIR MILE)					•	•	SUM WP 350, Page 3 of	3, t.mes 98 thiu 10

44 UNBUNDLED 4-WIRE DSI DIGITAL GRADE LOOP

LINE NO.	DESCRIPTION	SOURCES	W LENGTHS	M-(A)LINE 2	STATE: FLORIDA WORKPAPER: 481 PAGE 1 OF 1 DATE: APRIL, 1986
1 2 3 4 6	HUB TO CP LOOP LENGTH (feet) STATE AVG LOOP LENGTH (feet) CO TO HUB (feet)	FECONOMIC ANALYSIS LINE 2 - LINE)	4,500 11,590 7,090	38.63% 61.17% 100.00%	
7			(A)		
11 12 13 14 16 16	PROBABILITY OF OCCURRENCE DESIGN #1 DESIGN #2 DESIGN #3 DESIGN #4 DESIGN #5	BING NETWORK	10.00% 35.00% 15.00% 25.00% 15.00% 100.00%		
16 19 20 21 22 22 23	ROUTE-TO-AIR RATIO	ECONOMIC ANALYSIS	1.43		
26 27 28 27 28 29					

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STATE: FLORIDA WORKPAPER: 410 PAGE 1 OF 1 DATE: APRIL, 1986

DESIGN I STATE AVG. AIR 1/2 MILES (D)-(B)(C) (AIR IMLES) MALF MRES (C) ROUTE-TO AAR LATTO 1.43 DESIGN 1 OP-CAVIAND GLOUTE MALES HALF MALES

WP:401, Page 1 of 1, Line 2 Calculation WP:401, Page 1 of 1, Line 22 Calculation

COLLAN (A) COLLAN (B) COLLAN (C) COLLAN (C) SORGES

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STATE AVOLOOP LENGTH

CO TO CP LOOP LENGTH

DESIGN I

COURT WILES

UNBUNDLED 4-WIRE DSI DIGITAL GRADE LOOP 1996-1998 LEVEL

DESIGN #1 LOOP LENGTH SURPART

11,590

STATE FLORIDA WORKPAPER 420 PAGE 1 OF 1 DATE APRIL, 1996

UNBUNDLED & WIRE DSI DICITAL CRADE LOOP 1996-1990 LEVEL

PRICH FL SOP LINETE SUMMANT

SPINISHESS POUTE MEETS

63 BOUTE TO BANDO

(AR MES)

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SECH 1 STATE AVG. AR 10 MILES

2

COLUMN(A)
LINE 1 WP:401, Page 1 of 1, Line 2
LINE 5 WF:401, Page 1 of 1, Line 2 multiplied by 3.14
COLUMN (B) Calculation
COLUMN (C) WF:401, Page 1 of 1, Line 22
COLUMN (C) Calculation

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36,393

(CIRCUMPERENCE OF STATE AVG)

CO TO CP LOOP LENGTH

DESIGN 3

11,590

STATE AVG LOOP LENGTH

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UNBURDLED 4-WERE 961 DIGITAL GRADE LOOP 1994-1990 LEVEL

NESICH #8 LOOP LENGTH PUMPLEY

STATE FLORIDA WORKPAPER 430 PAGE 1 OF 1 DATE APRIL 1996

LIME MO.		POUTE MILES PART	MALF AGESTS	BOUTS-TO ARL BATTO	MALE METER (VEF PRETER)
1	STATE AVG LOOP LENGTH	11,590			
2	,	•			
	DESIGN 3				
4	CO TO CP LOOP LENGTH				
•	(CIRCUMPERENCE OF STATE AVQ)	36,393	14	1.43	10
		•	• •		

DESIGN 3 BESIGN 3 STATE AVG. AIR 1/2 MELES 10

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LINE 1 WP:401, Page 1 of 1, Line 2
LINE 5 WP:401, Page 1 of 1, Line 2 audiplied by 3.14

COLUMN (C)

COLUMN (C)

WP:401, Page 1 of 1, Line 22

COLUMN (C)

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Line 3 WP-501, Page 1 of 1, Column (B), Line 3

Line 4 WP-501, Page 1 of 1, Column (B), Line 1

Line 1 WF-501, Page 1 of 1, Column (A), Line 1

Line 4 WF-501, Page 1 of 1, Column (A), Line 1

Line 5 WF-501, Page 1 of 1, Column (A), Line 1

Line 6 WF-501, Page 1 of 1, Column (A), Line 1

Column (B) WF-501, Page 1 of 1, Line 22

COLUMN (C) WF-501, Page 1 of 1, Line 22

COLUMN (C) Calculation

Column (D) Calculation

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STATE FLORIDA WOULDAFER 458 PAGE 1 OF 1 DATE APPU, 1888				Column (AA) Line 3
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SEEM STON OF CALVINGS	· "	6	.	WP-401, Page 1 of 1, Column (B), Line 3 WP-401, Page 1 of 1, Column (B), Line 1 WP-401, Page 1 of 1, Column (A), Line 2 WP-401, Page 1 of 1, Column (A), Line 3 WP-401, Page 1 of 1, Column (A), Line 1 Columnian WP-401, Page 1 of 1, Line 22 Columnian
(A) GLUTE (ALES) FELS	11,590	14,130		1=
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UNBUNDLED 4-WIRE DEI DESTAL GRADE LOOP 1996-1999 LEVEL 1996-1990 LEVEL 1997-1990	STATE AND LOOP LENGTH CO TO HUB WEIGHT DREAGN 2 CO TO HUB LOOP LENGTH GOAT TO POBIT)	HAIR TO CP WEIGHT DEFEND 2 HAIR TO CP LOOP LENGTH (CRICLAFELENCE OF STATE AVG)		S .
UNDUNDLED 4-W 1996-1998 LEVEL LINE	- n n + • •	m • • \$ 5 523		机线线线线线线线线线线线线

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SECTION 5

SECTION 5

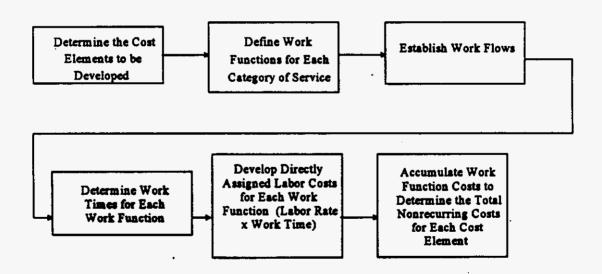
FLORIDA UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP

COST DEVELOPMENT - NONRECURRING

Nonrecurring costs are one-time costs incurred as a result of provisioning, installing, disconnecting and completion of orders initiated by a customer request for the Unbundled 4-Wire DS1 Digital Grade Loop. The Nonrecurring Cost Study is performed to determine the service order, provisioning and disconnect costs associated with the cost element listed above. Calculations for the nonrecurring costs are included in this section.

Figure 5-1 shows a generalized flow of the steps necessary for developing nonrecurring costs. Each part of this flow will be explained in more detail in this section.

Figure 5-1
Generalized Flow Diagram for Developing Nonrecurring Costs



The first step in developing nonrecurring costs is to determine the cost elements to be studied. Each cost element is then described by all of the individual work functions required to provision the element. An example of a work function is the designing of a circuit in the Circuit Provisioning Group.

The work functions required to provide the Unbundled 4-Wire DS1 Digital Grade Loop can be grouped into four categories. These are:

- 1) Service Order
- 2) Engineering
- 3) Connect and Test
- 4) Technician Travel Time

Work functions included in these categories range from clerical activities to installation activities.

The next step in developing nonrecurring costs requires that Company Subject Matter Experts identify the work functions involved in the provisioning of the Unbundled 4-Wire DS1 Digital Grade Loop. (an example of a work function is making a cross-connect in the central office). These work functions are then used to describe the flow of work within the various work centers involved in provisioning the element.

The next step in the development of nonrecurring costs is to determine work rimes for each work function associated with the nonrecurring costs of the Unbundled 4-Wire DS1 Digital Grade Loop. The work times of the various work groups are determined from Subject Matter Expert inputs. Each work time estimate is made by a subject matter expert who thoroughly understands how each activity is done.

A spreadsheet model is used to incorporate the specific work functions and labor rates. In order to arrive at the nonrecurring cost for the element studied, the work time for each work function required is multiplied by the appropriate labor rate. The labor inflation factors (LIF) are used to bring the labor rate to the study period. The levelized labor rate is expressed on a pre minute basis on workpaper 750, as are the worktimes. The labor rates and the labor inflation factors are shown in Section 7. Next, the individual work function costs are accumulated into the total cost for the cost element studied.

To recognize cost reductions on orders with loops, costs are calculated separately for the first and additional loop. "First" refers to the first item on a service order. "Additional" costs are the incremental costs of providing one or more duplicates of the item on the same service order at the same time as the first.

The basic process by which nonrecurring costs are calculated consists of combining unit work times with hourly costs of each specific service category. These labor time, and service order related work times, are multiplied by the directly assigned labor rates for the work groups performing the activities.

Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as the installation costs. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then

discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

The following workpapers reflect the cost development.

	SUMMARY OF NONRECURRI	NG COSTS	STATE: WORKPAPER: PAGE: DATE:	FLORIDA 700 1 OF 1 Aug-96
	4 WIRE DS1 DIGITAL GRADE	LOOP		
	(1996-1998 Level Incrementa	il Costs)	A	B
	DESCRIPTION	SOURCE	FIRST	ADDTL
3	Service Order	WP750 Col G LN7 thru LN21	~	
	Engineering	WP750 Col G LN24 thru LN28		
6 7 8	Connect & Test	WP750 Col G LN31 thru LN35		
10	Technician Travel Time	WP750 Col G LN38		
13 14	•	Sum of L3, L5, L7, L9		
15 16				
17				
18 19				
20				

STATE: WORKPAPER: PAGE;

DATE:

FLORIDA 750 1 OF 1 Aug-96

LEVEL 1996 - 1998

DIRECTLY ASSIGNED

1 2 3 4 5 DESCRIPTION	(A) INSTALL WORKTIMES (HRS) W FIRST ADDIL	(F) DISCONNECT VORKTIMES (HRS) FRST ADDIL	(C) LEVEL (ZED LABOR RATE	(D) INSTALL COST (A*C) FIRST ADDIL	(F) DISCONNECT COST (8°C) FIRST ADDIL	(F) DISCOUNTED DISCONNECT COST (E*DDF) FIRST ADDIL	(G) (D+F)*(1· TOTAL <u>FPST</u>	+GRT) TOTAL <u>ADDTL</u>
6 <u>SERVICE ORDER</u> 7 CLISTOMER POINT OF CONTACT-ICSC	M		\$40.80		- X	1	!	_
9 ISC TEAM MEMBER			\$42.06			1	Ì	
10 11 ISC OLERICAL SUPPORT	Ţ.		\$ 31 <i>A</i> 7			:	-	
12 13 CIRCUIT PROVISIONING CENTER-CPC	<u> </u>		\$36.65			1	1	7
14 15 NETWORK PLUG-IN ADMINISTRATION-PICS 16			\$44.56			1	į	
17 NETWORK ADMINISTRATION			\$35.D3			!	i i	
19 CO INSTALL & MTCE - OKT & FAC-NTEL. 20	X		\$41.64				i	F
21 INSTALLATION & MTCE CENTER-IMC 22	2.		\$35.92			1	1	
23 ENGINEERING 24 FACLITIES ASSIGNMENT-FACS 25	*		\$33.35			÷		
26 CIRCUIT PROVISIONING CENTER-CPC 27	類		\$36.65					
25 OUTSIDE PLANT ENGINEERING-OSPE 29	3		\$48.42		1		i	•
30 CONNECT & TEST 31 NETWORK ADMINISTRATION 32	3		\$35.03		İ		I	
33 CO INSTALL & MTCE - OKT & FAC-INTEL 34	E		\$41.64					
36 INSTALL & MTCE — SPEC SVCS-SSIM (CONN & TES' 36	n a		\$44.15				ļ.	
37 TRAVEL 36 INSTALL & MITCE — SPEC SVCS—SSIM (TRAVEL) 39	E		\$44.15		i			
40 TUTAL NONRECLIRRING COST								

SECTION 6

SECTION 6

FLORIDA UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP

SPECIFIC STUDY ASSUMPTIONS

The cost study for the Unbundled 4-Wire DS1 Digital Grade Loop for the state of Florida is based on incremental economic theory and assumptions, plus specific Network deployment strategies, first choice provisioning guidelines, and equipment purchasing information.

Cost study assumptions are as follows.

- 1. The cost of money is 13.2%, the forward-looking incremental cost to the firm.
- 2. The 4-Wire DS1 Digital Grade Loop is deployed just like MegaLink® Service; it is deployed on the same network architecture designs as MegaLink® Service and the same provisioning guidelines are used for both. Also, customer distribution is assumed to be similar, so MegaLink® Service loop lengths are used to determine the flat rate cost.
- 3. Five network architectures will be used to deploy DS1 local channels. The designs are based on Network Strategic Planning's Deployment Guidelines. These designs are found on the following pages of this section.
- 4. The probabilities of occurrence for the designs are based on estimates by BellSouth Network Subject Matter Experts. They are as following:

Design #1 Probability of Occurrence -

Design #2 Probability of Occurrence -

Design #3 Probability of Occurrence -

Design #4 Probability of Occurrence -

Design #5 Probability of Occurrence -

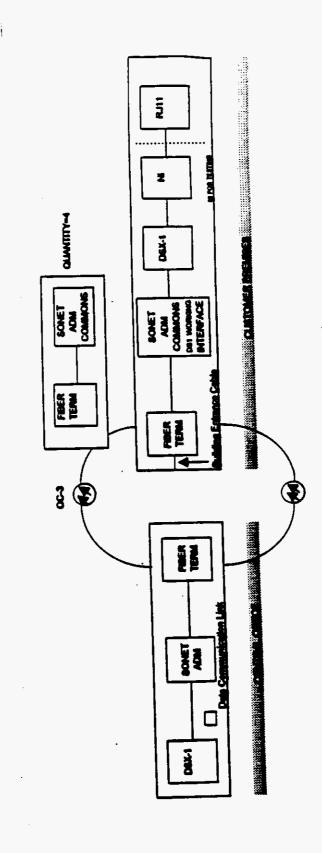
5. The SONET Fundamental Investment Model provided the equipment investments.

24

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28

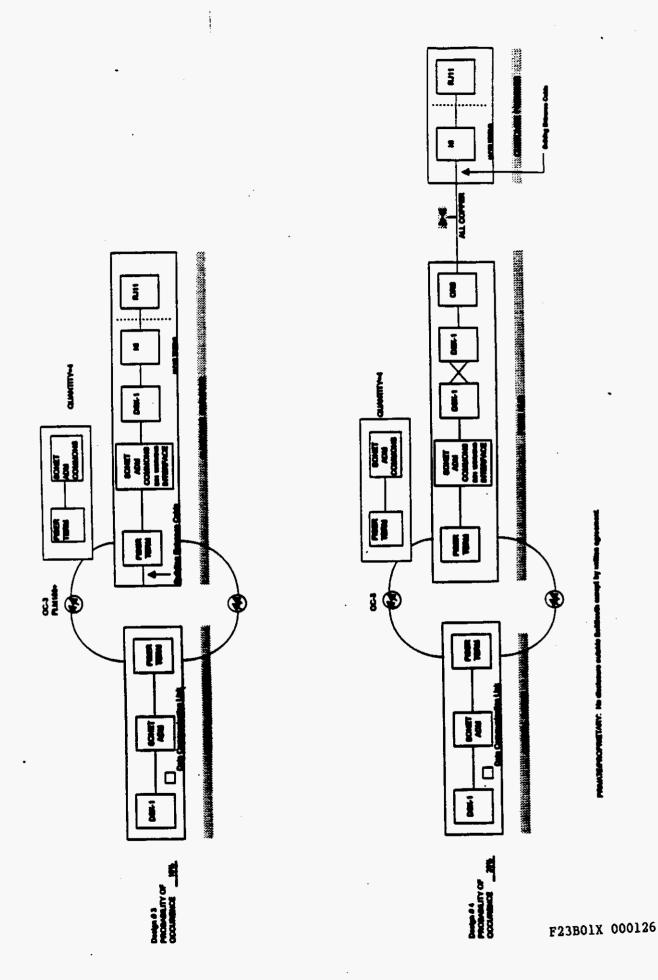
Ę UNBUNDLED 4-WIRE DS1 LIGHTAL GRADE LOOP 8 DEXT



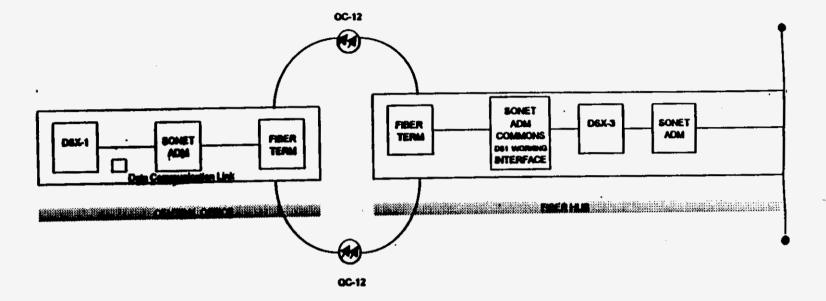
Design 81

Daniga 62

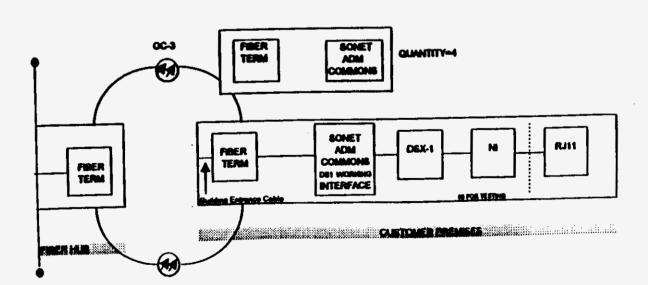
F23B01X 000125



UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP



Doolge # 5



F23B01X 000127

SECTION 7

SECTION 7

PLORIDA UNBUNDLED 4-WIRE DS1 DIGITAL GRADE LOOP FACTORS AND LOADINGS

Following are the incremental annual cost factors and labor rates used in the Unbundled 4-Wire DS1 Digital Grade Loop cost study for Florida.

Florida Unbundled 4-Wire DS1 Digital Grade Loop Factors and Loadings

Distribution to Code	22C 45C 5C	0.152777 0.633938 0.213285
Route to Air Ratio		1.43
In Plant Factors	257C	1.2107
Levelization Factor	257C	0.962
Gross Receipts Tax Factor		0.0152
Discounted Disconnect Factor		0.8562
Annual Cost Factors:		
Digital Circuit - Pair Gain Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax TIRKS Expense Gross Receipts Tax	257C	0.1134 0.0636 0.0288 0.0089 0.0113 0.0052 0.0035
Digital Electronic Switch Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax TIRKS Expense Gross Receipts Tax	377C	0.1134 0.0651 0.0302 0.0282 0.0113 0.0000 0.0038
Aerial Cable - Metallic Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax TIRKS Expense Gross Receipts Tax	12C, 22C	0.0917 0.0797 0.0338 0.0571 0.0113 0.0000 0.0042

Plorida Unbundled 4-Wire DSI Digital Grade Loop Factors and Loadings

Underground Cable -	
Metal 5C	
Depreciation	0.1036
Cost of Money	0.0813
Income Tax	0.0342
	0.0291
Maintenance	0.0113
Ad Valorem Tax	
TIRKS Expense	0.0000
Gross Receipts Tax	0.0039
Buried Cable - Metal 45C	
Depreciation	0.0876
Cost of Money	0.0809
Income Tax	0.0354
Maintenance	0.0543
Ad Valorem Tax	0.0113
TIRKS Expense	0.0000
Gross Receipts Tax	0.0041
GIOSS MCGIPES 122	***************************************
Aerial Cable - Fiber 812C, 822C	
Depreciation	0.0667
Cost of Money	0.0784
Income Tax	0.0347
Maintenance	0.0139
Ad Valorem Tax	0.0113
TIRKS Expense	0.000
Gross Receipts Tax	0.0031
Underground Cable -	
Fiber 85C	
Depreciation	0.0626
Cost of Money	0.0800
Income Tax	0.0358
Maintenance	0.0135
Ad Valorem Tax	0.0113
TIRES Expense	0.0000
Gross Receipts Tax	0.0031
-	
Buried Cable - Fiber 845C	
Depreciation	0.0585
Cost of Money	0.0816
Income Tax	0.0367
Maintenance	0.0144
Ad Valorem Tax	0.0113
TIRKS Expense	0.0000
Gross Receipts Tax	0.0031
ATABO VERETRAD YEN '	

Florida Unbundled 4-Wire DS1 Digital Grade Loop Factors and Loadings

Poles 1C		
Depreciation	0.0671	
Cost of Money	0.0725	
Income Tax	0.0325	
Maintenance	0.0279	
Ad Valorem Tax	0.0113	
TIRKS Expense	0.0000	
Gross Receipts Tax	0.0032	
gross wegerhoo rar	0.0038	
Conduit 4C		
Depreciation	0.0242	
Cost of Money	0.0877	
Income Tax	0.0401	
Maintenance	0.0028	
Ad Valorem Tax	0.0113	
TIRKS Expense	0.0000	
Gross Receipts Tax	0.0025	
Land 20C		
Depreciation	0.0000	
Cost of Money	0.1118	
Income Tax	0.0514	
Maintenance	0.0000	
Ad Valorem Tax	0.0113	
TIRKS Expense	0.0000	
Gross Receipts Tax	0.0027	
•	*******	
Building 10C		
Depreciation	0.0302	
Cost of Money	0.0986	
Income Tax	0.0452	
Maintenance	0.0069	
Ad Valorem Tax	0.0113	
TIRES Expense	0.0000	
Gross Receipts Tax	0.0029	
1995 Directly Assigned Hourly Labor Rates		
Customer Point of Contact (ICSC)	\$38.30	
ISC Team Nember	\$39.49	
ISC Clerical Support	\$29.54	
CO Install & Maintenance (NTEL)	\$39.09	
Circuit Provisioning Center		
Network Planning & Eng (PICS)		
Network Planning & Eng (PICS) \$ Spec Srvcs Disp & Admin Ctr (SSDAC) \$		
Network Admin	\$33.72 \$32.89	
Facilties Assignment (FACS)	\$31.28	
Outside Plant Engineering (OSPE)	\$45.26	
Install & Mtce - Spec Svcs (SSIM)	\$41.45	

Florida Unbundled 4-Wire DS1 Digital Grade Loop Factors and Loadings

Labor Inflation

Telco Eng	
Year 1	3.4%
Year 2	3.8%
Year 3	3.6%
Telco COB	
Year 1	3.2%
Year 2	3.5%
Year 3	3.48

FLORIDA



UNBUNDLED EXCHANGE PORTS

COST STUDY
DOCUMENTATION

SECTIONS A THRU 6

FLORIDA UNBUNDLED EXCHANGE PORTS CONTENTS

11 i

SECTION A	PROF	PRIETARY RATIONALE	
SECTION 1	INTRODUCTION AND OVERVIEW		
SECTION 2	DESCRIPTION OF STUDY PROCEDURES		
SECTION 3	SUMMARY OF RESULTS		
SECTION 4	COST DEVELOPMENT - RECURRING & NONRECURRING		
	4A	2W ANALOG PORT	
	4B	2W ISDN DIGITAL PORT	
	4C	2W ANALOG DID PORT	
	4D	4W DS1 DIGITAL DID PORT	
	4E	4W DS1 DIGITAL ISDN PORT	
	4F	LOCAL MEASURED USAGE	
SECTION 5	SPEC	CIFIC STUDY ASSUMPTIONS	
SECTION 6	FACT	TORS AND LOADINGS	
	 6A	LABOR RATES, LABOR INFLATION, ETC.	
	6B	CONVERSION FACTOR DEVELOPMENT	
	 6C	ADJUSTMENT FACTOR FOR UNBILLABLE CALLS DEVELOPMENT	

SECTION A

111

111

COST STUDY DOCUMENTATION PROPRIETARY RATIONALE

UNBUNDLED EXCHANGE PORTS

The Unbundled Exchange Ports Cost Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms.

Two models developed by Bellcore are used in this study. SCIS, Switching Cost Information System, is the foundation for the calculation of switch investments contained in the study. The model's mathematical formulas include information which is covered by proprietary agreements between Bellcore and the switch vendors. NCAT, Network Cost Analysis Tool, is used to develop the cost of local usage. Both models use sophisticated programming and data management techniques which are the intellectual property of Bellcore.

For these reasons, the Unbundled Exchange Ports Cost Study is considered proprietary.

SECTION 1

INTRODUCTION AND OVERVIEW

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

These Long Run Incremental Cost (LRIC) and Total Service Long Run Incremental Cost (TSLRIC) studies are being provided for Unbundled Ports in the state of Florida in response to Docket No. 950984-TP, Order No. PSC-96-0444-FOF-TP Issued March 29, 1996.

LRIC is the volume sensitive incremental cost. TSLRIC is expressed as a unit incremental cost. It is developed by dividing the volume insensitive incremental cost by demand, and then adding the resultant value to the volume sensitive incremental cost.

Unbundled Ports include local networking and various types of switch terminations which allow access to switch features and functions. (Section 5 contains detailed drawings of the network components.) Unbundled ports provide the Alternative Local Exchange Companies (ALECs) with a physical presence in the switch and use of the local switched network ¹.

Recurring costs presented in this study are directly assigned, incremental and levelized to be appropriate for the 1996-1998 study period. Nonrecurring costs follow the same convention and represent 1996-1998 level costs also. These long-run incremental costs are developed by using 1995 level incremental loadings and annual cost factors based on 13.2% Cost of Money and directly assigned labor rates.

¹ The 2-wire digital ISDN port usage is strictly for circuit-switched traffic. The nonrecurring cost to configure ISDN channels per individual customer specifications is not included.

SECTION 2

SECTION 2

DESCRIPTION OF STUDY PROCEDURES

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

This section describes the general principles for the development of costs supporting the Florida Unbundled Ports.

In determining these costs, direct incremental costing techniques are used that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or. alternately, costs that would be saved if the production levels were reduced. Costs are forward-looking in nature because only future costs can be saved. Incremental costs are long run to insure that the time period studied is sufficient to capture all forward-looking costs affected by the business decision. Incremental costs include both recurring (capital and operating nonrecurring . (service provisioning) expenses) and Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments, necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance, ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for the Unbundled Ports is to determine the forward-looking Vendor EF&I (engineered, furnished and installed) investments. This is accomplished through the use of Bellcore's proprietary modeling tool, SCIS, Switching Cost Information System, version

2.1. In-plant factors are applied to vendor investments to develop installed investments which include engineering and installation labor.

Plant account specific Investment Inflation Factors are applied to the installed investments to trend the base year, or study year, investments to levelized amounts that are valid for a three to five year planning period. Appropriate loadings for land, building and miscellaneous common equipment and power are then applied.

Next, 1995-level Florida Intrastate Incremental Annual Cost Factors are used to calculate the direct cost of capital (in this case, 13.2%), ongoing maintenance and operating expenses, and taxes. These factors (specific factors for each USOA FRC) are applied to levelized investments by account code, yielding an annual cost per account code. These costs are then divided by twelve to arrive at a monthly cost per cost element.

LRIC is the volume sensitive incremental cost. The average volume insensitive incremental unit cost is developed by dividing the total insensitive costs by demand. The TSLRIC Unit Cost is developed by adding the LRIC volume sensitive unit cost and the average volume insensitive incremental unit cost.

THE DEVELOPMENT OF NONRECURRING COSTS

Nonrecurring costs are "one-time" costs incurred as a result of provisioning, installing, and disconnecting the Unbundled Ports. The work function times, identified by subject matter experts, are used to describe the flow of work within the various work centers involved. Installation and provisioning costs are developed by multiplying the work time for each work function by the directly assigned 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. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The disconnect cost is added to the installation cost and the gross receipts tax is applied to develop the total nonrecurring cost.

DEVELOPMENT OF LOCAL USAGE COSTS

The study utilizes Bellcore's Network Cost Analysis Tool (NCAT) model to develop these costs. The version used in this study is 4.1. Refer to Section 4 for a detailed explanation of the NCAT model.

SECTION 3

11

SECTION 3, PAGE 1 SUMMARY OF RESULTS

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

This section contains a cost summary for both recurring and nonrecurring cost elements studied for 1996-1998 Unbundled Ports for Florida and the Local Measured Usage, as required.

	Rate Element	Unit Recurring	Nonrecurring ¹	В	Unit C Recurring Equivalent	TSLRIC Unit Recurring
11234	2W Analog ² Residence	\$	Volume Sensitive Labor RTU Fees Volume Insensitive	\$ \$ RTU\$	\$	\$ \$ \$ \$ \$ \$ \$ \$ \$
17 18 19 20 21	2W Analog ² Business	\$	Volume Sensitive Labor RTU Fees Volume Insensitive	\$ \$ RTU\$	\$	\$ \$ \$ \$ \$ \$ \$ \$
23/25/25/27	2W Analog ² PBX	\$	Volume Sensitive Labor RTU Fees Volume Insensitive	\$ \$ RTU\$	\$	\$ \$ \$ \$ \$
スペート23B01X 000145	2W ISDN Digital ²		Volume Sensitive Labor RTU Fees Volume Insensitive		\$ \$	* * * * * *
000145	Priv	vate/Proprietary:	No disclosure outside	BellSouth except by	written agreement.	

SECTION 3, PAGE 2, SUMMARY OF RESULTS

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

	· : 4	COST STODE DOC	COMENTATION	Unit (TSLRIC _
	Unit Recurring	1	R	Recurring	Unit
_	Rate Element LRIC	Nonrecurring	\mathcal{D}	Equivalent	Recurring
8	2W DID Analog \$	Volume Sensitive		•	Ś
9		Labor	\$		Ś
10		RTU Fees	\$		Š
//		Volume Insensitive	RTUS		· Č
12			••••		ė.
					*
13	4W DID Digital \$	Volume Sensitive			ė
14	• ,	Labor	¢		٠ د
15		RTU Fees	č		٠
16		Volume Insensitive	ארוויל. מינויל		\$
17		volume impensitive	KIU\$		<u>\$</u>
				·	\$
10	411 TODY D1 1 32 4				
18	4W ISDN Digital ² \$	Volume Sensitive			\$
19		Labor	\$		\$
19 20 21		RTU Fees	\$	\$	\$
22		Volume Insensitive	RTU\$	\$	S
			·	•	ė

SECTION 3, PAGE 3 SUMMARY OF RESULTS

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

Additional Port,	Same Location			Unit Recu	ring	
Rate Element	Nonrecurring 5				_	4
2W Analog			Λ		R	
Residence .			A		U	
	Labor	\$				
	RTU Fees	\$		\$	•	
2W Analog						
Business	Volume Sensitive					
	Labor	\$				
	RTU Fees	\$		\$	<u></u> .	
2W Analog						
PBX	Volume Sensitive					
	Labor	\$				
	RTU Fees	\$		\$		
2W ISDN Digital	Volume Sensitive					
•	Labor	\$				
	RTU Fees	\$		\$		
		· ·		\$	•	
	Rate Element 2W Analog Residence 2W Analog Business 2W Analog PBX	2W Analog Business 2W Analog Business Volume Sensitive Labor RTU Fees 2W Analog PBX Volume Sensitive Labor RTU Fees 2W ISDN Digital Volume Sensitive Labor RTU Fees	Rate Element Nonrecurring 5 2W Analog Residence Volume Sensitive Labor \$ RTU Fees \$ 2W Analog Business Volume Sensitive Labor \$ RTU Fees \$ 2W Analog PBX Volume Sensitive Labor \$ RTU Fees \$ 2W ISDN Digital Volume Sensitive Labor \$ RTU Fees \$	Rate Blement Nonrecurring 5 2W Analog Residence Volume Sensitive Labor \$ RTU Fees \$ 2W Analog Business Volume Sensitive Labor \$ RTU Fees \$ 2W Analog PBX Volume Sensitive Labor \$ RTU Fees \$ 2W ISDN Digital Volume Sensitive Labor \$ RTU Fees \$	Rate Blement Nonrecurring SEquiv 2W Analog Residence Volume Sensitive Labor \$ 2W Analog Business Volume Sensitive Labor \$ RTU Fees \$ 2W Analog PBX Volume Sensitive Labor \$ RTU Fees \$ 2W ISDN Digital Volume Sensitive Labor \$ RTU Fees \$ \$ \$ \$ 2W ISDN Digital Volume Sensitive Labor \$ RTU Fees \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Rate Element Nonrecurring S Equivalent 2W Analog Residence Volume Sensitive Labor \$ RTU Fees \$ \$ 2W Analog Business Volume Sensitive Labor \$ RTU Fees \$ \$ 2W Analog PBX Volume Sensitive Labor \$ RTU Fees \$ \$ 2W ISDN Digital Volume Sensitive Labor \$ RTU Fees \$ \$ 2W ISDN Digital Volume Sensitive Labor \$ RTU Fees \$ \$

SECTION 3, PAGE 4 SUMMARY OF RESULTS

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

	Additional Port,	Same Location		Unit Recurring
	Rate Element	Nonrecurring 5	Δ	Equivalent 4
	2W DID Analog	Volume Sensitive	e <i>[</i> 7]	Ø
9		Labor	\$ \$	\mathcal{D}
910		RTU Fees	\$	
	4W DID Digital	Volume Sensitiv	e	
12		Labor	\$ \$	
13		RTU Fees	\$	
	4W ISDN Digital	Volume Sensitiv	e	
15		Labor	\$	
15 147		RTU Fees	\$	\$ \$
17		Volume Insensit	ive RTU\$	\$
			('_	P
	Local Measured U	Bage - per Call	Initial Minute	Additional Minute
	2W Analog Port		Inicial Minuce	Additional mindo
21	Peak		\$	\$
22	Off-Peak		\$	\$ \$
	ATT-Leav		₩	*
23	2W ISDN Digital	Port	\$	\$
^ //	4W ISDN DS1 Digi	ital Port	\$.	\$
24	AM TODIN DOT DIGI	ital FULL	¥.	₹

Private/Proprietary: No disclosure outside BellSouth except by written agreement.

11

SECTION 3, PAGE 5 SUMMARY OF RESULTS EXPLANATION OF POOTNOTES

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

1 First item on service order.

As an example, average usage characteristics for a 2W analog port would indicate an additional average monthly cost of: Usage costs are in addition to these costs.

9 Residential
// Business

S

S

// BBX

The costs displayed in this summary The Volume Insensitive RTU Fees occur on a per office basis. have been divided by the per office demand. 4 The nonrecurring RTU fee can be amortized over the economic life of the digital switch, 120 months.

5 Additional ports, for the same physical location.

Private/Proprietary: No disclosure outside BellSouth except by written agreement.

SECTION 4

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SECTION 4

COST DEVELOPMENT - RECURRING & NONRECURRING

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

This section defines the cost development for the Florida Unbundled Ports.

Recurring Cost Development

The basic economic cost development is outlined in Section 2. Network architecture is determined, the necessary equipment is identified, vendor EF&I investments are calculated, factors and loadings are applied and the result is levelized for the study period. Annual cost factors are applied to convert the investment to cost. An internally developed model, ACE, is used to perform the mathematical calculations necessary to convert investments to costs. Since the results are linear with respect to the investment, a conversion factor by plant account code (and in-plant factor) can be developed. Tab 6 outlines the development of the factor; a \$10,000 investment was run through the ACE model. To obtain the factor, the monthly cost is divided by 10,000.

As mentioned in Section 2, the SCIS (Switching Cost Information System) model lays the foundation for developing the vendor EF&I investments. The model outputs reflect vendor design criteria, BellSouth engineering rules, and customer usage characteristics.

Workpapers 20-24, where applicable, develop the investment and convert the investment to monthly costs.

Workpaper 22 of the 2-Wire ISDN Port Study (Tab 4B) develops the Right To Use (RTU) expense per port termination. RTU fees are both volume sensitive, sold on a per BRI or per Switch Module (SM) basis, and volume insensitive, sold per office. The TSLRIC Unit Costs are developed by adding the LRIC Unit Costs (volume sensitive) to the volume insensitive unit costs (per office costs divided by demand).

Workpaper 33 of the 4-Wire ISDN DS1 Port Study (Tab 4E) develops the RTU expense per port termination. As with the 2-Wire ISDN Port, the RTU fees are both volume sensitive and volume insensitive. The TSLRIC Unit Costs are developed by adding the LRIC Unit Costs to the volume insensitive unit costs.

Nonrecurring costs are one-time costs incurred as a result of provisioning, installing and disconnecting service and completion of orders for Unbundled Ports.

Company subject matter experts identify the work functions involved in the provisioning of the Unbundled Ports. These work functions are then used to describe the flow of work within the various work centers involved in provisioning the element.

The next step in the development of nonrecurring costs is to determine work times for each work function associated with the nonrecurring costs of the Unbundled Ports. The work times of the various work groups are determined from Subject Matter Expert inputs.

A spreadsheet model is used to incorporate the specific work functions and labor rates. In order to arrive at the nonrecurring cost for the element studied, the work times for each work function required is multiplied by the appropriate directly assigned labor rate. The labor inflation factor is used to bring the labor rate to the study period and gross receipts tax is added.

Next, the individual work function costs are accumulated into the total cost for the cost element studied.

The basic process by which nonrecurring costs are calculated consists of combining unit work times with hourly costs of each specific service category. These labor times, and service order related work times, are multiplied by the directly assigned labor rates for the work groups performing the activities.

Utilizing work functions, work times and labor rates, disconnect costs are calculated in the same manner as the installation costs. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The disconnect cost is added to the installation cost and the gross receipts tax is applied to develop the total nonrecurring cost.

Workpapers 30-31 (if needed) detail the development of the nonrecurring costs.

Local Measured Usage

Local measured usage costs were developed through the utilization of the Network Cost Analysis Tool (NCAT), version 4.1. This model was developed and is maintained by Bellcore.

Bellcore's Network Cost Analysis Tool - Production Module (NCAT) is used to develop long run incremental costs for various services, including Local, MTS, WATS, WatsSaver® service, 800, and Switched

Access. The NCAT application has four modules. They are the report system, calculator, usage and the database modules. The database module contains files that must be populated in order to use the application. More specifically, the end office, tandem, facility, tandem homing arrangement, point of termination (POT), POT homing arrangement, alias, annual cost factor, facility/termination unit investment, SCIS Model Office Results Transfer (SMORT), switch mix and study parameters files must be either built or obtained from appropriate sources for input to NCAT.

The end office, tandem, tandem homing arrangement, point of termination, and switch mix files are developed from Company databases such as Local Switching Demand and Facility (LSDF), Local Exchange Routing Guide (LERG), General Trunk Forecast (GTF), and Interexchange Carrier Access Database System (ICADS). The information in the study parameter files is obtained from the Call Setup application and the Network department. Some of the fields are user defined.

The SMORT file is obtained from the Switching Cost Information System (SCIS) module. This file contains the necessary information to develop switch investments for DMS, DCO and SESS technologies and their corresponding remotes.

The facility or TIRKS file is obtained from the Information Technologies (IT) organization. This file contains the trunking information for toll and switched access services for the state under study.

The investments in the Facility Termination Unit Investment (FTUI) file are obtained from the Economic Costs Fundamental Interoffice Group. This file contains banded facility and termination investments for each plant account used in the service under study.

The point-to-point usage data for toll and switched access is obtained from the IT department. The data is preprocessed into usage file format defined and required by NCAT. Local service point-to-point usage is developed using Subscriber Line Usage Study (SLUS) data and NCAT's LOCALPRO module.

Once all the files in the database are populated and the usage files are obtained—and loaded, the NCAT calculator can be invoked. The calculator's main function is to produce long run incremental costs in the form of the costs for the initial and additional minute of use by distance band and by time of day or rate period; but, in order to develop the long run incremental cost, a selected demand change percent or stimulation factor is used to determine "offered load" (messages and minutes) for the service under study. The network component costs are based on the amount of resources necessary to carry this "offered load". This cost is structured into two components: setup and duration.

The setup and duration costs are used to develop costs for an initial and an additional minute in the following manner; the duration cost is the cost for the additional minute. The costs for an initial minute is the sum of the setup cost per message, the volume sensitive expense per message and the duration cost per minute.

The results from the NCAT model are contained in a separate tab labeled Local Usage. The development of incremental cost above Local Measured Usage is outlined in Workpapers 40-42, if required.

SECTION 4A

n i

Unbundled Exchange Ports Monthly Costs — Summary

State: Florida Workpaper: 20 Page: 1 of 1 Date:

	A	8	
LN	Description	Source	Amount
1 2 3 4	Ports 1 Residential Business PBX	WP21, LN32 WP21, LN32 WP21, LN32	
5 6 7			
8 9 10 11			
12 13 14 15		•	
16 17 18 19			
20 21 22			
23 24 25 26			
27 28 29	Note:		
30 31 32 33 34	The non-traffic sensitive switch termination The equipment required is the same for Re	does not vary by class of service. sidence, Business and PBX, terminations.	

Monthly Costs - Ports Unbundled Exchange Ports

96/60/80

$\overline{\mathcal{O}}$	ી	\forall	
fnuomA	Source	Description	רא
	SCIS/MO - 5ESS Line Termination Report	5ESS Calculations Investment	5
		MDF & Protector MDF & Protector	4
	FN3+FN4	Investment per Port	2 4 2
DYTE	·	_	L
		Account Code for Investment	8 8
7 + 0720.0	ACE Report 20, Total Monthly Cost/10,000	Conversion Factor - Investment to Cost	01
<u></u> t us	0เกา∗9ทา	SESS Monthly Cost	11
		DMS Calculations	13
	SCIS/MO - DMS Line Termination Report	<u>inemisevni</u>	12
		MDF & Protector NTS Switching Investment	91
	LN1+9IN1	Investment per Port	71 81 91
OTTE	,	Account Code for Investment	50 50
7+0720.0	ACE Report 20, Total Monthly Cost/10,000	Conversion Factor – Investment to Cost	53
· , -	EZNT-6INT	DMS Monthly Cost	52 54
garante di di		•	5 2
,	2JAN — ezsdatsG 7&Q	Meld Calculations Technology Distribution	27 28
%9'89 %9'89		DWS 2E88	53
C To the Control of t		SIMIO.	30 30
المُعَلَّمُ عِنْ مِنْ الْمُعَلِّمُ عِنْ مِنْ الْمُعَلِّمُ عِنْ مِنْ الْمُعَلِّمُ عِنْ مِنْ مِنْ الْمُعَلِّمُ عِنْ مِنْ	LN12*LN29+LN25*LN30	Melded Monthly Cost	32 33

State: Florida Workpaper: 30 Page: 1 of 1 Date:

	' A .	B	
LN	Description	Source	Amount
1	Nonrecurring Cost - First		
2	Residential	WP31A, LN14	
3	Business	WP31A, LN30	
4	PBX	WP31B, LN14	•
5			
6	Nonrecurring Cost - Additional		
7	Residential	WP32A, LN14	•
8	Business	WP32A, LN30	
9	PBX	WP32B, LN14	
10	, <u></u>		
11	RTU Fee, per Port ¹	WP34, LN10	
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30	1 Note: The RTU fee can be amortized ove	r the economic life of the switch.	
31	This unit recurring equivalent is (WP34,	.N16):	\$0.3 1
32	title autitionalitie adamantie (tot a t)	•	
33			
34			
35	•		

State: Florida Workpaper: 31A
Page: 1 of 1
Date:

		A	В	Inflation	D	E	F
LN	Description	Hours	Labor Rate	Factor (WP35, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
1	Residential						
2	Local Carrier Service Center (LCSC)						
3	Installation		\$38.30	1.0652	1.0152		
4	Disconnect		\$38.30	1.0652	1.0152	0.9114	
5	Disconlised.		400,00	1.0052	1.0132	0.3114	
6	Line and Number Administration ¹						
7	Installation		\$30.21	1.0652	1.0152		
	***************************************		\$30.21 \$30.21	1.0652	1.0152	0.9114	
8	Disconnect		\$30.21	1.0002	1.0132	0.9114	
9	CO leadell Malatanana B Admini 4: 41	0.4					
10	CO Install, Maintenance & Administration -	SOUMELO	A 07.00	4 Acro	4.0450		
11	Installation		\$37.38	1.0652	1.0152	0.0444	
12	Disconnect		\$37.38	1.0652	1.0152	0.9114	
13							* A
14	Total Nonrecurring Cost — Residence		Sum (LN3LN12)				
15							
16							
17	Business						
18	Local Carrier Service Center (LCSC)	79 ×1974 x					
19	installation		\$38.30	1.0652	1.0152		
20	Disconnect		\$38.30	1.0652	1.0152	0.8981	
21							
22	Line and Number Administration ¹						
23	Installation		\$30.21	1.0652	1.0152		
24	Disconnect		\$30.21	1.0652	1.0152	0.8981	
25							
26	CO Install, Maintenance & Administration -	Software					
27	Installation		\$37.38	1.0652	1.0152		
28	Disconnect		\$37.38	1.0652	1.0152	0.8981	
29			•				
30	Total Nonrecurring Cost — Business		Sum (LN19LN28)				
31			(
32	¹ Note:						
33	Function performed by Network Services Clerical	L					
34		•					
35							

State: Florida Workpaper: 31B Page: 1 of 1

Date:

Labor Factor GRT Disconnect Nonrecurring			A	B	Inflation	D	E	=
PBX	LN	Description	Hours					Nonrecurring Cost
Local Carrier Service Center (LCSC)		3 0-3-1 -3 10-11	*******	, , _ , ,	(,,			
State Stat								
Disconnect \$38.30 1.0652 1.0152 0.8193								
Line and Number Administration								
Line and Number Administration	•	Disconnect		\$38.30	1.0652	1.0152	0.8193	
Installation	_							· e-··e
8 Disconnect \$30.21 1.0652 1.0152 0.8193 9 10 CO Install, Maintenance & Administration — Software Installation								
9								
CO Install, Maintenance & Administration — Software Installation		Disconnect		\$30.21	1.0652	1.0152	0.8193	
Installation			_					- \$
Disconnect	10		tion — Software _.					
Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12)	11							
Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12) Total Nonrecurring Cost — PBX Sum (LN3LN12)		Disconnect		\$37.38	1.0652	1.0152	0.8193	100
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 31 31 31 31 34 34 Function performed by Network Services Clerical.								Mr. Sales
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 31 4 32 * Note: 33 * Function performed by Network Services Clerical.	14	Total Nonrecurring Cost — PBX		Sum (LN3LN12)				
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 32 * Note: Function performed by Network Services Clerical.	15							
18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 32 31 Function performed by Network Services Clerical.	16							
19 20 21 22 23 24 25 26 27 28 29 30 31 32 *Note: 33 *Function performed by Network Services Clerical. 34								
20								
21 22 23 24 25 26 27 28 28 29 30 31 31 31 32 31 43 32 40 33 54 54 54 54 55 65 66 67 67 67 67 67 67 67 67 67 67 67 67								
22	20							
23 24 25 26 27 28 29 30 31 31 32 31 4 Note: 33 5 Function performed by Network Services Clerical.								
24 25 26 27 28 29 30 31 31 32 Note: 33 Function performed by Network Services Clerical.								
25 26 27 28 29 30 31 32 31 32 Note: 33 Function performed by Network Services Clerical.								
26 27 28 29 30 31 31 32 33 Function performed by Network Services Clerical. 34								
27 28 29 30 31 31 ** 32 ** Note: 33 Function performed by Network Services Clerical.								
28 29 30 31 · 32 · Note: 33 · Function performed by Network Services Clerical. 34	26							
29 30 31 · 32 · Note: 33 · Function performed by Network Services Clerical. 34								
30 31 · 32 · Note: 33 · Function performed by Network Services Clerical. 34	28							
31 32 ⁷ Note: 33 Function performed by Network Services Clerical. 34								
32 ¹ Note: 33 Function performed by Network Services Clerical. 34								
33 Function performed by Network Services Clerical. 34	31	• • • •			•			
34								
		Function performed by Network Services (Clerical.					
	34 35							

State: Florida Workpaper: 32A

Page: 1 of 1 Date:

		A	B	Inflation	D	E	F
			Labor	Factor	GRT	Disconnect	Nonrecurring
LN	Description I	lour#	Rate	(WP35, LN19)	Factor	Factor	Cost
1	Residence						
2	Local Carrier Service Center (LCSC)						
3	Installation		\$38.30	1.0652	1.0152		
4	Disconnect		\$38.30	1.0652	1.0152	0.9114	
5							
6	Line and Number Administration 1						
7	Installation		\$30.21	1.0652	1.0152		•
8	Disconnect		\$30.21	1.0652	1.0152	0.9114	
9			•				** · · F**
10-	CO Install, Maintenance & Administration -	Software					-
11	Installation		\$37.38	1.0652	1.0152		
12	Disconnect		\$37.38	1.0652	1.0152	0.9114	
13			ı				
14	Total Nonrecurring Cost - Residence		Sum (LN3LN12)				
15	•		·				-
16							
17	Business						
18	Local Carrier Service Center (LCSC)						
19	Installation		\$38.30	1.0652	1.0152		
20	Disconnect		\$38.30	1.0652	1.0152	0.8981	
21			• • •				
22	Line and Number Administration 1						
23	Installation		\$30.21	1.0652	1.0152		
24	Disconnect		\$30.21	1.0652	1.0152	0.8981	
25			V				• ***
26	CO Install, Maintenance & Administration -	Software					
27	Installation		\$37.38	1.0652	1.0152		
28	Disconnect		\$37.38	1.0652	1.0152	0.8981	
29	· · · · · · · · · · · · · · · · · · ·		431.45				30.50
30	Total Nonrecurring Cost - Business		Sum (LN19LN28)				
31							مدي ه
32	1 Note:						
33	Function performed by Network Services Clerical.						
34	parisimos of restrain Optition Civilian.						
35							

State: Florida Workpaper: 32B Page: 1 of 1 Date:

	•	A	B	Inflation	70	E	F
LN	Description	Hours	Labor Rate	Factor (WP35, LN19)	GAT Factor	Disconnect Factor	Nonrecurring Cost
		••		•			
1	PBX						
2	Local Carrier Service Center (LCSC) Installation		400.50	4 0050	4.0450		
3	Installation Disconnect		\$38.30 \$38.30		1.0152 1.0152	0.8193	
5	Uisconnect		\$38.30	1.0652	1.0152	0.6193	2 6.25
6	Line and Number Administration 1						
7	installation		\$30.21	1.0652	1.0152		
8	Disconnect		\$30.21 \$30.21	1.0652	1.0152	0.6193	
9			₩30.21	1.0002	1.0132	0.0133	
10	CO Install, Maintenance & Administration	- Softwere					
11	Installation	Collegate	\$37.38	1,0652	1.0152		
12	Disconnect		\$37.38	1,0652	1.0152	0.8193	
13			4-1.00	******	.,	_,_,_	in the second
14	Total Nonrecurring Cost - PBX		Sum (LN3LN12)				,
15	• • • • • • • • • • • • • • • • • • • •		(-)				
16							
17							
18		•					
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29 30							
31 32	1 Note:						
33		-1					
33 34	Function performed by Network Services Cleric	8 1.					
35							

State: Florida Workpaper: 34
Page: 1 of 1
Date:

	, A	В	
LN	Description	Source	Amount
1	Ports		
2	5ESS	Contract PR-6700-B	
3	DMS	None Required	
4			
5	Meld Calculations		
6	Technology Distribution	D&F Database - NALs	68.5%
7	5ESS		31.5%
8	DMS		<u>01.5,0</u>
9	Melded RTU Fee	LN2*LN7+LN3*LN8	
10	Melded RTU w/GRT	LN9*LN24	
11			
12	Port RTU Fee Expressed as Unit Recurring	ig Equivalent	
13	Melded RTU Fee w/ GRT	LN10	1.04%
14	Monthly Interest Rate	Based on 13.2% Annual Interest Rate	120
15	Term (Months)	Digital Equipment Economic Life	120
16	Unit Recurring Equivalent	@pmt(LN13,LN14,LN15)	
17	•		
18			
19			
20			
21			
22			
23			1.0152
24	GRT Factor	Fundamental Cost Group	1.0152
25			
26			
27		•	
28			
29			
30			
31			
32			
33			
34			
35			

LN	Description	Amount	Amount	Amount
1	Labor Levelizing Factor Calculation	Year 1	Year 2	Year 3
2		•		
3	Inward Movement	1	1	1
4				
5	Present Worth Factors 1	0.8834	0.7804	0.6894
6				
7				
8	•		4.005	1.024
9	Inflation per Year (Labor)	1.032	1.035	1.034
10	Cummulative Inflation (Year 1, Year 1 * Year 2, etc)	1.032	1.068	1.104
11				
12		0.0004	0.7804	0.6894
13	Present Worth of Inward Movement (LN3*LN5)	0.8834	0.7804	0.7614
14	Present Worth of Cummulative Inflation (LN5*LN10)	0.9117	0.8335	0.7014
15		0.05		
16	Sum of Present Worth of Inward Movement (Sum LN13)	2.35		
17	Sum of Present Worth of Cummulative Inflation (Sum LN14)	2.51		
18	1 W. d France (I NATH NAC)	1.0652		
19	Levelizing Factor (LN17/LN16)	1.0032		
20				
21				
22				
23				
24 25				
25 26				
27				
28				
29				
30	Present Worth Factor = 1/(1+.0132) ^n			
31	n = Year; 13.2% = Cost of Money			
32				
33				
34	,			
35				

SECTION 4B

, , i

-			Pog
-	-	Rate Element	2W ISDN Digital Port
			7

Summary of Costs

 Rate Element	2W ISDN Digital Port	
	7	

1)

Nonrecurring
Additional

A Nonrecuring

 β Monthly

96/60/80

State: Florida Workpaper: 10 Page: 1 of 1 Date:

	~ 6>
Usage	Initiel Minute · Additional Conversation Minutes (per Minute)
	60

State: Florida Workpaper: 20 Page: 1 of 1

08/09/96 Date: Amount Source Description WP21, LN26 Switching Costs WP22, LN103 RTU fees 1 LN1+LN3 **Total Monthly Cost** The RTU fee is comprised of volume sensitive and volume insensitive costs expressed on a per termination basis. The volume sensitive cost is: The volume insensitive cost is:

State: Florida Workpaper: 21 Page: 1 of 1 Date:

Δ			
y Descripti	on	Source	Amount
1 5ESS Calculations 2 Investment per ISDN Port		SCIS/MO - SESS ISDN Line Termination Report	A September 1
3 4 Account Code for investment			377C
5 6 Conversion Factor — Investme	ent to Cost	ACE Report 20, Total Monthly Cost/10,000	0.027047
7 8 SESS Monthly Cost 9		LN2*LN6	्रा _{स्मि} न्तिकार स्थाप
DMS-Calculations Investment per ISDN Port Account Code for investment		SCIS/MO — DMS ISDN Line Termination Report	377C
5 6 Conversion Factor - Investm		ACE Report 20, Total Monthly Cost/10,000	0.027047
17 18 DMS Monthly Cost 19		LN12*LN16	Server .
20 21 Meld Calculations 22 Technology Distribution 23 5ESS 24 DMS		D&F Detabase — NALs	68.5% 31.5%
25 26 Melded Monthly Cost		LN8*LN23+LN18*LN24	i gradini da Nga arawa
27 28 29 30 31 32 33 34 35 36 37 38		·	

State: Florida Workpaper: 22 Page: 1 of 3 Date:

	A	₽ ₽	(' , ' ' '
LN	Description	Source	Amount
1	RTU Packages - Discounted Cost		
2	5ESS i		
3	National ISDN I Package ¹	Per Office	e
4	NIS1BSW National ISDN Base		The state of the
5	NIS1SBB Standard BRI Base		
6	NIS1DAT Basic Data for Standard BRI		
7	NIS1CSD Deluxe CSD for Standard BRI		
8	NIS1PSD Deluxe PSD for BRI		
9	ISBRIDS BRI Data Service Package		- ·
10	National ISDN II Package	Per Office	
11	Total per Office	LN3+LN10	
12	ISDNOAM ISDN OA&M Package	Per SM	
13	GX75RTU X.75' Packet Gateway Access	Per SM	
14	CCSQRTU Q931/SS7 Interworking	per SM	
15	Total per SM RTU Fees	LN12+LN13+LN14	
16	ISBRIDS BRI Data Services Package	Per BRI	
17			
18	DMS100		
19	NTX750AB ISDN Basic Access		
20	Per 2B+D		
21	Per 1B+D		
22	Per Switch		
23	NTX753AB ISDN Advanced Signalling		
24	NTX754AB ISDN EKTS		
25	NTX755AC ISDN Supplementary Services		
26	NTX756AA ISDN Display Services		
27	NTX757AA ISDN/ISUP Interworking		
28	NTX767AA ISDN Routing & Digital Analysis		
29	DMS-IPH Software Packages		
30	NTXP47AA - Packet Handler base		
31	NTXH77AA — Channelized Access on LPP/LIS		
32	NTXP75AA - DMS PH SERVORD		
33	NTX159AA ISDN Automatic Message Accounting	·	
34	NTXUS1AA ISDN Digital Test Access	Per Office	
35	NTXJ51AA ISDN Digital Test Access	Per BRI	
36	NTX119AA MDC Message Waiting		
37	NTXN89AA Testing ISDN Services		
38	NTXN91AATL-1 Testing Interface Base		
39	NTXN93AA TL-1 Testing ISDN Services		
40	NTXRS5AA TL-1 Parsing Interface Base		
41	NTX167AB CCS7 Trunk Signaling		
42	NTXF92AA ISON OA&M Base		
43			
44	Total per Switch Expenses	@SUM(LN19LN43) ~ LN21 ~ LN20 ~ LN35	
	•	•	

State: Florida Workpaper: 22 Page: 2 of 3 Date:

	A	R	
[IN	Description	Source	Amount
46	Model Office Statistics	Network	
47			
48	·		
49	Total BRI's	Melded SESS & DMS	
50	18+D		
51	2B+D		i
52			
53	Technology Distribution	D&F Database - NALs	68.5%
54	5ESS		31.5%
55	DMS	•	31.5%
56		Based on Annual 13.2% Rate	1.04%
57	Monthly Interest Rate	Based on Annual 13.2% Hate	1.0476
58		377C Economic Life	120
59	Term (Months)	377C Economic Die	
60	Volume Sensitive RTU Fees		
61	5ESS		
62	Per BRI	LN16	
64	Per SM	LN15	
65	1 01 000	,	
66	Capacity per SM (Based on current CCS load)	Network	
67	Capany parameters		
68	Total SESS per BRI	LN63+LN64/LN66	
69	,		
70	DMS		
71	Per 1B+D	LN21	
72	Per 28+D	LN20	
73		LNEGALIA	
74		LN50/LN49 LN51/LN49	
75		[101][1449	
76		LN71*LN74+LN72*LN75	
77	Melded 1B+D & 2B+D		
78		LN35	
80			
81		LN77+LN79	
82			
83		LN54*LN68+LN55*LN81	
84			
85		@PMT(LN83,LN57,LN59) ·	
86			
87	Unit Recurring Equivalent w/GRT	LN85*LN105	
88			
89			
l on			

	A	<u> </u>	
LN	Description	Source	Amount
91	Volume Insensitive HTU Fee (per Office)	1.814.4	
92	5ESS	LN11 LN44	
93	DMS	D1444	
94 95 96	Melded per Office	LN54*LN92+LN55*LN93	
97 98	Volume Insensitive per BRI	LN95/LN49	
99 100	Volume Insensitive Expressed as Unit Recurring	@PMT(LN95,LN57,LN59)	
101	Unit Recurring w/GRT	LN99*LN105	
103	Total RTU per BRI	LN87+LN101	
105	GRT Factor	Fundamental Cost Group	1.0152
107		•	
109	Note:		
110	If left as a nonrecurring cost, the per SRI RTU Fee w	rould be:	٠ إ
112	Volume Sensitive:	LN83*LN105	
113	Volume insensitive:	LN97*LN105	
114			
115			
116			
117			
118			
120			
121			
122			1
123			
124			
125			\$
126			
127			
128			
129 130			
130			
132			
133			
134			
135			

Nonrecurring Cost - Additional	Source Source	Page: 1 of 1 Date:	08/09/96 Amount
1 200	WP32, LN33		
Volume Sensitive	WP22, LN112 WP22, LN113		
'Note: The RTU Fees can be ammortized over the economic life of the switch. These unit recurring eqivalent fees have been added to the switching recurring costs. This sum is displayed on WP20, LN5.	the economic life of the switch. added to the switching recurring costs.		·

State: Florida Workpaper: 31
Page: 1 of 1
Date:

	,	A	8	Inflation	D	E	F
LN	Description	Hours	Labor Rate	Factor (WP33, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
1	Local Carrier Service Center (LC	CSC)					
2	Installation		\$38.30	1.0652	1.0152	2122	
3	Disconnect		\$38.30	1.0652	1.0152	0.8014	
4	•						
5	Circuit Provisioning Center (CP)	C)					
6	Installation		\$34.41	1.0652	1.0152		
7	Disconnect		\$34.41	1.0652	1.0152	0.8014	
8						•	
9	Facilities Assignment (FACS)						
10	Installation	•	\$31.28	1.0652	1.0152		
11	Disconnect	₹	\$31.28	1.0652	1.0152	0.8014	
12							
13	CO Install & Maintenance - Cire	cuit & Facility					
14	Installation		\$39.09	1.0652	1.0152		
15	Disconnect		\$39.09	1.0652	1.0152	0.8014	
16		. (20					
17	Network Plug-in Administration	(PICS)					
18	Installation		\$ 41.65	1.0652	1.0152		
19	Disconnect		\$41.65	1.0652	1.0152	0.8014	
20							
21	CO Install, Maintenance & Admi	inistration - Software					
22	Installation		\$37.38	1.0652	1.0152		
23	Disconnect		\$37.38	1.0652	1.0152	0.8014	
24							
25	Network Services Clerical (SOP	89)					
26	Installation	\$	\$30.21	1.0652	1.0152		
27	Disconnect	Ę	\$30.21	1.0652	1.0152	0.8014	
28							
29	Special Services Coordinate &	Fest (SSC)					
30	Installation		\$36.41	1.0652	1.0152	0.001	
31	Disconnect	;	\$36.41	1.0652	1.0152	0.8014	
32							
33	Total Nonrecurring	Sum(LN2LN31)					
34 35							•

State: Florida Workpaper, 32 Page: 1 of 1 Date:

		A	В	Inflation	D	E	F
LN	,) Description	Hours	Labor Rate	Factor (WP33, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
	Description .	110010	1410	(*** 55, 2115)	1 40101		5551
1	Local Carrier Service Center (LCSC)						
2	Installation		\$38.30	1.0652	1.0152		
3	Disconnect		\$38.30	1.0652	1.0152	0.8014	
4							
5	Circuit Provisioning Center (CPC)						
6	Installation		\$34.41	1.0652	1.0152		
7	Disconnect		\$34.41	1.0652	1.0152	0.8014	
8							
9	Facilities Assignment (FACS)						
10	Installation		\$31.28	1.0652	1.0152		
11	Disconnect		\$31.28	1.0652	1.0152	0.8014	
12							
13	CO Install & Maintenance - Circuit & F	acility					
14	Installation	•	\$39.09	1.0652	1.0152		
15	Disconnect		\$39.09	1.0652	1.0152	0.8014	
16							
17	Network Plug-in Administration (PICS)	}					
18	Installation		\$41.65	1.0652	1.0152		
19	Disconnect		\$41.65	1.0652	1.0152	0.8014	
20			•				
21	CO Install, Maintenance & Administration	on - Software					
22	Installation		\$37.38	1.0652	1.0152		
23	Disconnect		\$37.38	1.0652	1.0152	0.8014	
24			4566		,		
25	Network Services Clerical (SOP89)		•				
26	Installation		\$30.21	1.0652	1.0152		
27	Disconnect		\$30.21	1.0652	1.0152	0,8014	
28			400.E1	1,0002			
29	Special Services Coordinate & Test (SS	SC)					
30	Installation	,	\$36.41	1.0652	1.0152		
31	Disconnect		\$36.41	1.0652	1.0152	0.8014	
32	,		φου,-τ1	1.0002	,		
33	Total Nonrecurring	Sum(LN2LN31)					
34	. a.m rannaminaiA	(m					
35							

LN .	Description	Amount	Amount	Amount
1	Labor Levelizing Factor Calculation	Year 1	Year 2	Year 3
2				
3	Inward Movement	1	1	1
4	Present Worth Factors 1	0.8834	0.7804	0.6894
5 6	Present worth Factors	0.0034	0.7664	0.0054
7	•			
8				
9	Inflation per Year (Labor)	1.032	1.035	1.034
10	Cummulative Inflation (Year 1, Year 1 *Year 2, etc)	1.032	1.068	1.104
11				
12				
13	Present Worth of Inward Movement (LN3*LN5)	0.8834	0.7804	0.6894
14	Present Worth of Cummulative Inflation (LN5*LN10)	0.9117	0.8335	0.7614
15	Come of Present Month of Inward Mayomant (Com I N112)	2.35		
16 17	Sum of Present Worth of Inward Movement (Sum LN13) Sum of Present Worth of Cummulative Inflation (Sum LN14)	2.55 2.51		
18	Suiti of Fiesett World of Obtilitionalive initiation (South Living)	2.51		
19	Levelizing Factor (LN17/LN16)	1.0652		
20		•		
21				
22				
23				
24				
25				
26 27				
28				
29				
30	Present Worth Factor = 1/(1+.0132) ^ n			
31	n = Year; 13.2% = Cost of Money			
32	•	•		
33				
34				
35				

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State: Florida Workpaper: 40 Page: 1 of 1 Date:

	A	Page:	
LN	Description	Source	Amount
- i	Call Set-up incremental BH Investment		
2	5ESS	WP41, LN16	
3	DMS	WP42, LN8	
4	,		***
5	Account Code for investment		377C
6			
7	Conversion Factor - Investment to Cost	ACE Report 20, Total Monthly Cost/10,000	0.027047
8			
9	Monthly Cost		
10	5ESS	LN2*LN7	
11	DMS	LN3*LN7	
12	·		+ 5 - M ₁₋₉
13	Technology Distribution	D&F Database — NALs	
14	5ESS		68.5%
15	DMS		31.5%
16			
17	Meided BH Call Set-up Cost	LN10*LN14+LN11*LN15	
18			
19	MOU Incremental BH Investment		
20	5ESS	No incremental Cost	
21	DMS	WP42, LN11	
22			
23	Monthly Cost		
24	5ESS	LN7*LN20	
25	DMS	LN7*LN21	
26			
27	Melded BH MOU Cost	LN14*LN24+LN15*LN25	
28	molecule (All Man and		
29	Conversion of BH Cost to Any Time, Any Day		
30	Factors		
31	BH/Full Day Ratio	Network Study (NCAT)	10%
32	Days per Month	365/12	30.4
33	cele bet mount	555,12	
34	Calculation		
35	Call Set—up	LN17*LN31/LN32	
36	MOU	LN27*LN31/LN32	
37	NOC.		
38	Cost for First Minute of Use (Incremental to POTS)	LN35+LN36	
39	Cost for Additional Minute (Incremental to POTS)	LN36	
40	AND DE VARIABLE MEMBE (III DE III DE III DE LA CAS)		
41	Cost for Call Setup (POTS)	NCAT	•
42	Cost for Additional Minute (POTS)	NCAT	3
43	One of Undiffulativalian (LO10)	119111	*
44	Total Cost for Initial Minute	LN38+LN41+LN42	
45	Total Cost for Additional Minute	LN39+LN42	

State: Florida Workpaper: 41 Page: 1 of 1

	A	В	Date: 08/09/96
LN	Description	Source	Amount
1 2 3 4 5 6	Incremental Cost of ISDN Usage SESS Calculations , Call Set-up EPHC		
8 9 10 11 12 13	Packet	,	
14 15 16	incremental Call Set—up Investment	LN8+LN14	. 4
17 18 19 20 21	Model Office Outputs IMO2 SM Realtime (ISDN SMs) IMO5 Access Packet per Second	SCIS/MO Output	₹
22 23 24 25 26 27 28	User Input IP1 BH ISDN-ISDN IAO Calls IP2 BH ISDN-POTS IAO Calls IP3 BH POTS-ISDN IAO Calls IP4 BH ISDN-Trunk Calls IP5 BH Trunk-ISDN Calls	Network	
29 30 31 32 33 34 35 36 37 38 40 41 42 43	SCIS/IN Database Items AT3 Realtime per EPHC RS569 BRI – BRI Increment RS569.02 BRI – Line Increment RS569.03 Line – BRI Increment RS569.06 BRI – Trunk Increment RS569.07 Trunk – BRI Increment PT569 BRI – BRI IAO PT569.01 BRI – POTS; POTS – BRI IAO PT569.02 BRI – Trunk PT569.03 Trunk – BRI	Assumption Table Item #3 SM Realtime Table Item #569 SM Realtime Table Item #569.02 SM Realtime Table Item #569.03 SM Realtime Table Item #569.06 SM Realtime Table Item #569.07 Packet Table Item #569 Packet Table Item #569.01 Packet Table Item #569.02 Packet Table Item #569.03	
44			

```
2W ISDN Digital Port
Development of BH Incremental Usage Investment DMS
```

State: Florida Workpaper: 42 Page: 1 of 1 Date:

	A	B	Date:	ک ک	08/09/96
LIN	Description	Source		Amount	
1	Incremental Cost of ISDN Usage				
2	DMS Calculations				
3	Call Set-up				
4	Getting Started				
5					
6					
7					
8					
9					
10	MOU 1 .				_
11	Line CCS		£.		4
12					
13	Model Office Outputs	SCIS/MO Output			
14	IMO4 ISDN Line CCS			,	Œ
15	MO1 Getting Started MO4 Line CCS				
16 17	MO4 Line CCS				
18	User Input	Network			
19	IP1 BH ISDN-ISDN IAO Calls	149144-01K			
20	IP2 BH ISDN-POTS IAO Calla				
21	IP3 BH POTS-ISDN IAO Calla				
22	IP4 BH ISDN-Trunk Calls				
23	IPS BH Trunk-ISDN Calls				
24					
25	SCIS/IN Database Items				
26	RT569 BRI BRI Increment	Realtime Table Item #569			
27	RT569.02 BRI - Line Increment	Realtime Table Item #569.02			
28	RT569.03 Line—BRI Increment	Realtime Table Item #569.03			
29	RT560.06 BRI-Trunk Increment	Realtime Table Item #569.06			
30	RT569.07 Trunk – BRI Increment	Realtime Table Item #569.07			
31					
32					
34					
35		•			
36					
37					
38					
39					
40	Note:				
41	I in the 5ESS, the ISDN line CCS is < POTS Line CCS.				
42	Thus, there is no incremental cost for MOU in the 5ES	SS.			
43					
44					
45					

SECTION 4C

State: Florida Workpaper: 10 Page: 1 of 1 Date:	æ	Nonrecuring First	† ·
	Þ	Monthly	
	***	Rate Element	2W DID Port
Summary of Costs			7

Nonrecurring Additional

96/60/80

Note: Costs do not include establishing the first trunk group and groups of numbers.

2W DID Port	
Summary of Monthly Cos	ts

State: Florida Workpaper; 20 Page: 1 of 1 Date;

Switching Costs WP21, LN15 Circuit Equipment WP22, LN25 Total Monthly Cost LN1+LN3 UN1+LN3		A	8	C
Switching Costs WP21, LN15 Circuit Equipment WP22, LN25 Total Monthly Cost LN1+LN3 Total Monthly Cost LN1+LN3	N.	Description	Source	Amount
Circuit Equipment WP22, LN25 Total Monthly Cost LN1+LN3 Total Monthly Cost LN1+LN3	2	Switching Costs	WP21, LN15	
7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	4	Circuit Equipment	WP22, LN25	
0 1 2 3 3 4 5 6 7 8 9 0 1 2 2 3 4 5 6 7 8 9 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	6 7	Total Monthly Cost	LN1+LN3	
0 1 2 3 3 4 5 6 7 8 9 0 1 2 2 3 4 5 6 7 8 9 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	8 9			
2	10 11			
3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 0 1 0 1 0 1 0 1 0 0 1 0 0 0 0 0 0	12			
5 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	13			
6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5			
B	6		·	
1 2 3 4 5 6 7 8 9	, B			
1 2 3 4 5 6 7 8 9	9			
	ĺ			
4 5 6 7 8 9 0 1 1 2 2 3 4 5 6 6 7	2			
5 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	4			
7 8 9 0 1 1 2 3 4 5 6 7 8	5 6			
B 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	7			
0 1 2 3 4 5 6 7 8	B 9			
1 2 3 4 5 6 7 8 8)			
3 4 5 6 7 8 8	1 2			
9 5 6 7 8 9	3			
6 7 8 9	4 5			
, 8 9	6			
9 0	8			
	9			

Investments per 2W DID Port Source Minoration Source Minoration Code: Object Medical Investments per 2W DID Port WP23, LM6 WP24, LM10 WP24, L	Calculation of Monthly Switching Costs	Page:10t	
Need investment per 2W DID Fort WP23, LN6 BESS DMS WP24, LM10 BMS WP24, LM10 BMS WP24, LM10 WP23, LM6 DMS WP24, LM10 WP	*		96/60/80
Investments per 2W DID Fort was gested by the base of	Oseciation	٦.)
MP23, LN6 Maided investment Account Code for investment Conversion Factor – investment to Cost Technology Distribution SESS DMS Monthly Cost LN5*LN9 LN5*LN9 LN5*LN9 LN5*LN9	Investments per 2W DID Port		
Medded Investment Account Code for Investment Conversion Fador – Investment to Cost Technology Distribution SESS DMS Monthly Cost Month	SESS	WP23, LN6 WP24 IN10	
Meided investment Account Code for investment Conversion Factor – Investment Technology Distribution Technology Distribution Technology Distribution Technology Distribution Technology Distribution D&F Database – NALs SESS SESS Monthly Cost LN5*LN9 LN5*LN9	DMS		
Account Code for Investment Conversion Factor - Investment to Cost Tachnology Distribution SES DMS Monthly Cost LNS*LN9	Melded investment	LN2*LN12 +LN3*LN13	1
Conversion Factor – Investment to Cost ACE Report 20, Total Monthly Cost/10,000 0.0. Technology Distribution D&F Database – NALs SESS DATABASES DATABASES DMS Monthly Cost LN5*LN9	Account Code for investment		377C
Technology Distribution D&F Database - NALs SESS DMS Monthly Cost LN5*LN9		ACE Report 20, Total Monthly Cost/10,000	0.027047
Monthly Cost Monthly Cost		D&F Detabase - NALs	\$6.00 \$1.00
Monthly Cost LN5*LN9			
		EN2*LN9	A Property of the Control of the Con
- au m - + 10 10 h - 90 f			
	_ ^		
5 S S S S S S S S S S S S S S S S S S S			
a y ► 9	·		
8	ဂ မာ		
·			

State: Florida Workpaper: 22 Page: 1 of 1 Date:

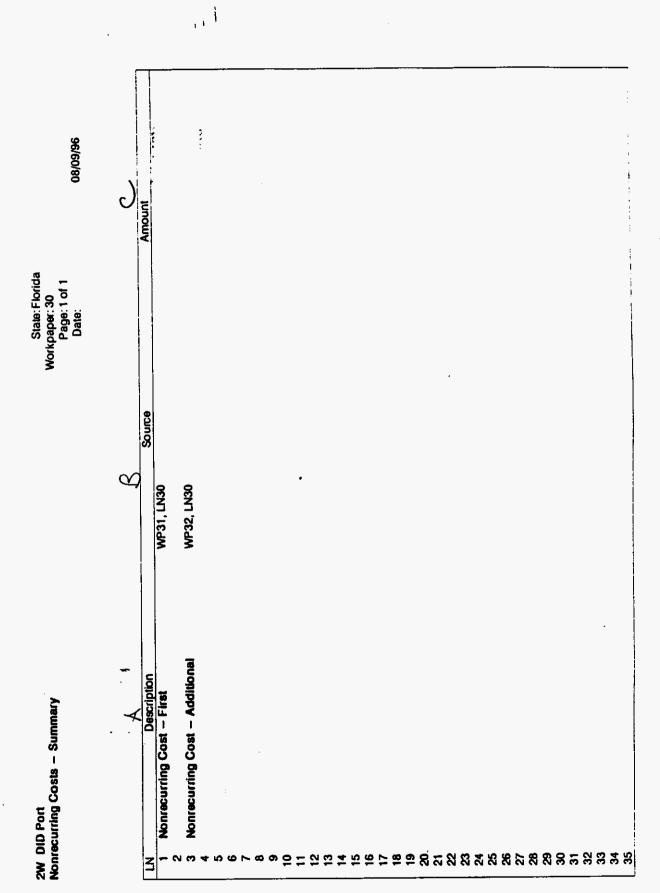
	A	B	00/03/90
	Description	Source	Amount
1	Circuit Equipment Required to Terminate 29	V DID Port	·····
2	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		
3	D4 Hardwire	Fundamental Study	
4	DSX Bay	Fundamental Study	
5			
. 6	Total Hardwire Investment	LN3+LN4	
7			
8	Account for Investment		357C
9	Commission France Institute and Cont.	405 B 400 T . 144 . W O	
10 11	Conversion Factor — Investment to Cost ¹	ACE Report 20, Total Monthly Cost/10,000	0.041306
12	Monthly Cost - Mondados	LN6*LN10	
13	Monthly Cost — Hardwire	LING-LIN FO	
14	Common Plug-in	Fundamental Study	
15	2WR DPO Plug-in	Fundamental Study	
16	twitter or tag in	r and amentar otdoy	
ļ7	Total Hardwire Investment	LN14+LN15	
18		L1171 L110	
19	Account for investment		, 357C
20			55.5
21	Conversion Factor - Investment to Cost 2	ACE Report 20, Total Monthly Cost/10,000	0.023414
22			
23	Monthly Cost — Plug—in	LN17*LN21	
24	-		
25	Total Circuit Equipment Monthly Cost		
26			
27			
28			
29			
30	Note:		
31	¹ Incorporates hardwire in – plant factor.	•	
32	2.		
33	² Incorporates plug—in in—plant factor.		
34			
35			
36 37			
37 38			
39			
40			

2W DID Port
Development of SESS Investments

State: Florida Workpaper: 23 Page: 1 of 1 Date:

	A	\mathcal{B}	_ 50,54,65
LN	Description	Source	Amount
1	5ESS Investment Calculations		
2	EPHC ' '		
3			
4	Hardware	\	
5			
6	Total investment	LN2+LN4	
7			
8]
9			
10	•		
11			
12 13			
14			
15			
16			
17			
18	Model Office Outputs	SCIS/MO Output	
19	MO2 SM Realtime		'
20			
21			
22			
23	User Input	Network	
24	IP1 BH DID Calls per Trunk		
25	IP2 Number of Trunks		
26			% *
27			
28			
29			
30	SCIS/IN Database Items		·
31	AT3 Realtime per EPHC	Assumption Table Item 3	
32	RS22.03 DID Call per Trunk	Resitime Table Item 22.03	
33	ME6 Digital Trunk	Miscellaneous Equation Item 6	
34			
35			
36			
37			
38			
39	EPHC = Equivalent POTS half-call.		1
40			

	D Port pment of DMS investment		State: Florida Workpaper: 24 Page: 1 of 1 Date: 08/09/96
	A	<u>B</u>	
LN	Description	Source	Amount
1	DMS Investment Calculations		·
2	Getting Started 7	The state of the s	
3		- The state of the	······································
4	Hardware		 -
5			
6	Memory		
7	Data Store		
8	Data Fili		The state of the s
9			
10	Total Investment	LN2+LN4+LN7+LN8	
11			THE STATE OF THE S
12		·	
13	Model Office Outputs		1 4 , p.
14	MO1 Getting Started	SCIS/MO Output	
15	-		₩.
16			
17			
18	User Input	Network	
19	IP1 BH DID Calls per Trunk		
20	IP2 Number of Trunks	•	
21			₹
22			
23			
24			
25	SCIS/IN Database Items		
26	RT22 DID	Realtime Table Item 22	
27	MD22 DID Words	Memory Table Item MD22	
28	MF22 DID Words	Memory Table Item MF22	
29	IT15 Data Store Words	Investment Table Item 15	
30	IT16 Data Fill Words	Investment Table Item 16	
31	ME6 Digital Trunk	Miscellaneous Equation Item 6	
32	mas ergine item		
33			
34			
35			
36			
37		•	
38			
39			
40			
70			The second secon



2W DID Port · Nonrecurring Costs — First

State: Florida Workpaper: 31 Page: 1 of 1 Date:

	4	A	В	Inflation	7	E	F
LN	. Description	Hours	Labor Rate	Factor (WP34, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
L14	o o o o o o o o o o o o o o o o o o o	110010	1,42.5	(00, 00,			
1	Local Carrier Service Center (LCSC)						
2	Installation		\$38.30	1.0652	1.0152		
3	Disconnect		\$38.30	1.0652	1.0152	0,8193	
4							
5	Circuit Provisioning Center (CPC)						
6	Installation		\$34.41	1.0652	1.0152		
7	Disconnect		\$34.41	1.0652	1.0152	0.8193	
8	•						
9	Network Services Clerical (SOP89)				4.0450		
10	Installation		\$30.21	1.0652	1.0152	0.0400	
11	Disconnect	Mariana	\$30.21	1.0652	1.0152	0.8193	
12							
13	CO Install, Maintenance & Administration	n – Software			4.0450		
14	Installation		\$37.38	1.0652	1.0152	0.8193	
15	Disconnect		\$37.38	1.0652	1.0152	0.0193	
16							
17	CO Install & Maintenance - Circuit & Fa	cility		4.6000	4.0450		
18	Installation		\$39.09	1.0652	1.0152	0.8193	
19	Disconnect		\$39.09	1.0652	1.0152	0.0153	
20		***					
21	CO Administration - Circuit, Carrier & F	actiny	***	1.0050	1.0152		
22	Installation		\$36.05	1.0652 1.0652	1.0152	0.8193	
23	Disconnect		\$36.05	1.0632	1.0132	0.0150	
24	DTH Cone	Minos Chico					
25	RTU Fees	WP33, LN19					
26 27							
21 28							
29							
30	Total Nonrecurring S	um(LN2LN25)					
31	tem temperaturily 2	UII(CI45 LI469)					W ¹
32							
33							
34							
35							

2W DID Port Nonrecurring Costs — Additional

State: Florida Workpaper: 32 Page: 1 of 1 Date:

		Α	B	Inflation	D	E	F
LN	; Description	Hours	Labor Rate	Factor (WP34, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
1	Local Carrier Service Center (LCSC)						
2	Installation		\$38.30	1.0652	1.0152		i
3	Disconnect		\$38.30	1.0652	1.0152	0.8193	
4	•		•				*20
5	Circuit Provisioning Center (CPC)						•
6	Installation		\$34.41	1.0652	1.0152		i
7	Disconnect		\$34.41	1.0652	1.0152	0.8193	ì
8			V				
9	Network Services Clerical (SOP89)						
10	Installation		\$30.21	1.0652	1.0152		
11	Disconnect		\$30.21	1.0652	1.0152	0.8193	
12			400. 2.				
13	CO Install, Maintenance & Administration	- Software					
14	Installation		\$37.38	1.0652	1.0152		
15	Disconnect		\$37.38	1.0652	1.0152	0.8193	
16	Siddan man		401.00	1,0002		*	
17	CO Install & Maintenance - Circuit & Fac	ility					
18	Installation		\$39.09	1.0652	1.0152		
19	Disconnect		\$39.09	1.0652	1.0152	0.8193	
20			400.00	1,000			
21	CO Administration - Circuit, Carrier & Fa	citity					
22	Installation	Cinty	\$36.05	1.0652	1.0152		
23	Disconnect	•	\$36.05	1.0652	1.0152	0.8193	
24	Diacamient		\$30.00	1,000	1.0102	0.0102	
25	RTU Fees	WP33, LN19					
26		VII 60, EIVI5					
27							
28							
29							
30	Total Nonrecurring	Sum(LN2LN25)					
31	tom tourousig	Julii(LI42LI423)					TO TOMES
32							"NACE
33							
34	• *				·		
35							

2W DID Port Development of RTU Fee Costs

State: Florida Workpaper: 33 Page: 1 of 1

0.4	00/00/06	
Date:	08/09/96	

	A	B	C C C C C C C C C C C C C C C C C C C
LN	Description	Source	Amount
1	DMS100 RTU Fees	Contract PR6900	
2	Per 100 Lines		
3	NTX100AA	Part of Buy—out w/NTI	
4			
5.			
6 7			
8			
9	SESS RTU Fees	None Required	
10	JESS NIO FEES	Holle Hedgines	
11	Technology Distribution	D&F Database - NALs	
12	5ESS	 	68.5%
13	DMS		31.5%
14	-		
15	Molded RTU Fee	LN3*LN13+LN9*LN12	
16	•		
17	GRT Tax Factor	Fundamental Cost Group	1.0152
18			•
19	RTU w/GRT	LN15*LN17	
20			
21			
22			
23			
24 25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

Unbundled Exchange Ports Development of Inflation Factor

96/60/80

State: Florida Workpaper: 34 Page: 1 of 1 Date:

LN Description	Amount	Amount	Amount
Labor Levelizing Factor Calculation	Year 1	Year 2	Von 3
	- i	4	
Inward Movement		-	-
Present Worth Factors 1	0.8834	0.7804	0.6894
^ C			
9 Inflation per Year (Labor)	1 032	1 035	, 034
10 Cummulative Inflation (Year 1, Year 1 * Year 2, etc)	1.032	1.068	1.104
12			
13 Present Worth of Inward Movement (LN3*LN5)	0.8834	0.7804	0.6894
14 Present Worth of Cummulative Infration (LN5*LN10) 15	0.9117	0.8335	0.7614
	2.35		
Sum of Present	2.51		
Levelizing Factor (LN17/LN16)	1 0652		
		•	
27 28			
n = Year; 13.2			
	•		

SECTION 4D

Summary of Costs

State: Florida

Workpaper: 10

Page: 1 of 1 Date:

08/09/96

A

 \mathbb{F}

C.

Rate Element

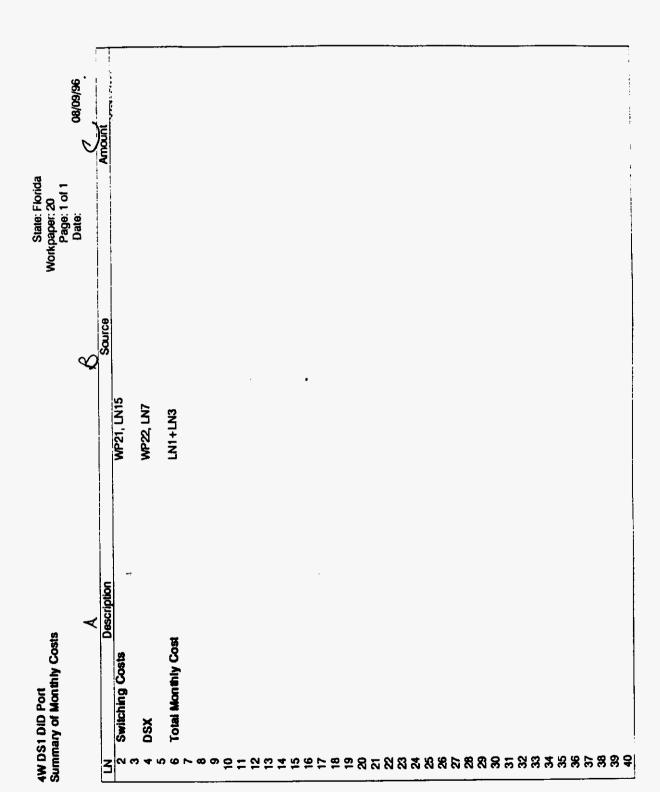
Monthly

Nonrecurring First Nonrecurring Additional

4W DS1 DID Port

Note:

Costs do not include establishing the first trunk group and groups of numbers. Nonrecurring costs do not include service activation.



State: Florida Workpaper: 21
Page: 1 of 1
Date:

	,	R	08/09/96	
LN	Description	Source	Amount	
1 2 3	Investments per 4W DS1 DID Port 5ESS DMS	WP23, LN6 WP24, LN10		
4 5	Melded investment	LN2*LN12 +LN3*LN13		
6 7	Account Code for Investment	•	377C	
8 9	Conversion Factor - Investment to Cost	ACE Report 20, Total Monthly Cost/10,000	0.027047	
10 11 12 13	Technology Distribution 5ESS DMS	D&F Database NALs	68.5% 31.5%	
14 15 16 17 18 19 20 21 22 23	Monthly Cost	LN5*LN9	÷	;
24 25 26 27 28 29 30				
31 32 33 34 35 36				
37 38 39 40				a.a. y

Note:

² Hardwire in -- plant

1 This is for 1/2 DSX bay termination.

	S1 DID Port hly Costs — DSX	Workpap Pag	ge: 1 of 1
	A	B	ite: 08/09/96
ĹN	Description	Source	Amount
1	DSX Investment ¹	Fundamental Cost	e and company
2			
3	Account Code ²		357C
4			0.044206
5	Conversion Factor — Investment to Cost	ACE Report 20, Total Monthly Cost/10,000	0.041306
6			€= 1
7	Monthly Cost	LN1*LN5	· mgs of Standards & Sugar of
8			. All Control of the Same
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19 20			
21			
22			
23			
24			
25			
26			
27			
28			
20			

4W DS1	DID Port
Develop	ment of SESS Investments

State: Florida Workpaper: 23 Page: 1 of 1 Date;

				Page: 1 01 1 Date: 08/09/96
	A	₿		
LN	Description		Source	Amount
1	5ESS Investment Calculations	 -		1
2	EPHC	Ę	34	
3		·	•	
4	Hardware	·		
5		110 - 114		
6	Total investment	LN2+LN4		
7				
8				
10				
11				
12				
13				
14				
15				
16				
17				
18	Model Office Outputs	SCIS/MO Output		•
19	MO2 SM Realtime			Li usili territorio
20				
21				Į.
22		A		_
23	User Input	Network		
24	IP1 BH DID Calls per Trunk			
25	IP2 Number of Trunks			- (
26				
28				
29				!
30	SCIS/IN Database Items			
31	AT3 Realtime per EPHC	Assumption Table	Item 3	
32	RS22.03 DID Call per Trunk	Realtime Table Ite	m 22.03	
33	ME6 Digital Trunk	Miscellaneous Equ	uation Item 6	
34	-			
35				
36				
37				
38				
39		·		
40				

	5	
⋖	a 2)	Date: 08/09/96
Description	Source	Amount
DMS Investment Celculations	***	1
	i programa de la companya de la comp	1980 19 85 au
Hardware		
Memory		* 4
Data Store		
	and the state of t	1.85
Total Investment	LN2+LN4+LN7+LN8	# # # # # # # # # # # # # # # # # # #
Model Office Outputs		;
MO1 Getting Started		
	33 Tag	4 de
IP1 BH DID Calls per Trunk	-	
IP2 Number of Trunks		***************************************
		•
SCIS/IN Database Items		
RT22 DID	Realtime Table Item 22	
MD22 DID Words	Memory Table Item MD22	
MF22 DID Words	Memory Lable Rem Mr.22	
(115 Date Store Words		
MER DISHE TENER	Miscellaneous Equation from 6	
		Ę.
	•	

1 1

State: Florida paper: 30 Page: 1 of 1 Date:	9	Amount																									
Work	82		WF31, LN30	WP32, LN30																							
4W DS1 DID Port Nonrecurring Costs Summary	- 1	LN Description	Nonrecuring Cost — First	3 Nonrecurring Cost - Additional	ታ ሆ	າຜ	7		D C	! =	22	₩ 4	15	9 1	~ 6	6	88	22	22 23	32 TA	9 2	28	82	30	31	33	 35

State: Florida Workpaper: 31
Page: 1 of 1
Date:

		A	8	Inflation	2	5	F
LN	Description	Hours	Labor Rate	Factor (WP34, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
1	Local Carrier Service Center (LCSC)	l					
2	Installation		\$38.30	1.0652	1.0152		
3	Disconnect		\$38.30	1.0652	1.0152	0.8193	
5	Circuit Provisioning Center (CPC)						
6	Installation		\$34.41	1.0652	1.0152		
7 8	Disconnect		\$34.41	1.0652	1.0152	0.8193	
9	Network Services Clerical (SOP89)						
10	Installation		\$30.21	1.0652	1.0152		
11 12	Disconnect		\$30.21	1.0652	1.0152	0.8193	
13	Switching Control Center (SCC)						
14	Installation		\$37.38	1.0652	1.0152		
15 16	Disconnect		\$37,38	1.0652	1.0152	0.8193	
17							
18 19							
20							
21	RTU Fees	WP33, LN19					
22							
23							
24 25							
26							
27							
28							
29							
30	Total Nonrecurring	Sum(LN2LN21)					
31							
32 33							
34							
35							

		A	В	Inflation	\mathcal{D}	E	-F
LN	Description :	Hours	Labor Rate	Factor (WP34, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
1	Local Carrier Service Center (LCSC)						
2	Installation		\$38.30	1.0652	1.0152		
3	Disconnect		\$38.30	1.0652	1.0152	0.8193	
5	Circuit Provisioning Center (CPC)						
6	Installation		\$34.41	1.0652	1.0152		
7 8	Disconnect		\$34.41	1.0652	1.0152	0.8193	
9	Network Services Clerical (SOP89)						
10	Installation		\$30.21	1.0652	1.0152		
11 12	Disconnect		\$30.21	1.0652	1.0152	0.8193	
13	Switching Control Center (SCC)						
14	Installation		\$37.38	1.0652	1.0152		
15 16	Disconnect		\$37.38	1.0652	1.0152	0.8193	
17							
18 19		,					
20 21	RTU Fees	WP33, LN19					
22		vii 55, 2115					
23 24							
25	•	·					
26 27							
28 29							
30	Total Nonrecurring	Sum(LN2LN21)					
31	_	,					
32							
33							
34 35		•					

State: Florida Workpaper: 33
Page: 1 of 1
Date:

<i>A</i>	\$	
LN Description	Source	Amount
PAROLOG DELL COM	Contract PR6900	
2 Per 100 Lines		ant i
3 NTX100AA	Buy-out w/NTI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
4		
5		
6		
7		
8	Alexan Denotine d	
9 5ESS RTU Fees	None Required	•
10 .	D&F Database - NALs	
11 Technology Distribution	Dar Deadase - NALS	68.59
12 SESS		31.59
13 DMS		
14	LN3*LN13+LN9*LN12	
15 Melded RTU Fee	E43 E414 E412	
16	Fundamental Cost Group	
17 GRT Tax Factor	, 4,,-2,,,-1, -1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-1,-	
18 19 RTU w/GRT	LN15*LN17	
20		
21		
22		
23		
24		
25		
26		
27		
28		
29	•	
30		
31		
32		
33		
34		
35		
36		
37		
38		
39 40		

LN	Description	Amount	Amount	Amount
1	Labor Levelizing Factor Calculation	Year 1	Year 2	Year 3
2				
3	Inward Movement	1	1	1
4				
5	Present Worth Factors 1	0.8834	0.7804	0.6894
6				
7 8				
9	inflation per Year (Labor)	1.032	1.035	1.034
10	Cummulative Inflation (Year 1, Year 1 * Year 2, etc)	1.032	1.068	1.104
11	Community minutes (10th 1, 10th 1, 10th 2, 0th.)	1.002	1,000	1.104
12				
13	Present Worth of Inward Movement (LN3*LN5)	0.8834	0.7804	0.6894
14	Present Worth of Cummulative Inflation (LN5*LN10)	0.9117	0.8335	0.7614
15	·			
16	Sum of Present Worth of Inward Movement (Sum LN13)	2.35		
17	Sum of Present Worth of Cummulative Inflation (Sum LN14)	2.51		
18				
19	Levelizing Factor (LN17/LN16)	1.0652		
20				
21 22				
23				
23 24				
25				
26				
27	•			
28				
29				
30	¹ Present Worth Factor = 1/(1+.0132) ^ n			
31	n = Year; 13.2% = Cost of Money			
32		•		
33				
34				
35				

SECTION 4E

Summary of Costs

Rate Element

4W ISDN DS1 Port (PRI)

5

Usage

First Minute of Use Additional Conversation Minutes (per Minute)

60

96/60/80

State: Florida Workpaper: 10 Page: 1 of 1 Date:

C Nonrecuring Additional

Nonrecurring First

Monthly

4

11 1

F23B01X 000203

State: Florida Workpaper: 20 Page: 1 of 1

Date: Q8/09/96 Source **Amount** LN Description Switching Costs¹ WP21, LN36 3 DSX WP22, LN7 RTU Fees 2 WP33, LN45 **Total Monthly Cost** LN1+LN3+LN5 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 ¹ The switching costs only include the physical termination, i.e. call – by – call access and incoming call identification are not included. 31 32 33 The RTU fee is comprised of volume sensitive and volume insensitive costs. The breakdown, permonth, per PRI is: 34 Volume Sensitive RTU Fee: 35 36 Volume Insensitive RTU Fee: 37 38

39 40

State: Florida Workpaper: 21
Page: 1 of 1
Date:

ов/09/96

	Æ	_ D	
N	Description	Source	Amount
1	5ESS Calculations		
2	Investment	SCIS/MO - 5ESS ISDN Line Termination Report	
3	Minimum Cost per D Channel		
4			
5	Minimum Cost per B Channel		
6	Number of B Channels		
7			
8	Investment per Port	LN3+LN5*LN6	
9			377C
10	Account Code for Investment		3770
11		4050 400 T 4484 484 0 440 000	0.027047
12	Conversion Factor - Investment to Cost	ACE Report 20, Total Monthly Cost/10,000	0.027047
13	FFOO Manakhi Cank	LN8*LN12	**
14	5ESS Monthly Cost	LNO-LN12	
15	DMS Calculations		
16 17	Investment	SCIS/MO - DMS ISDN Line Termination Report	
17 18	Minimum Cost per D Channel	2013/WO - DW2 13014 Dite 14111111ation report	
19	Millingin Coat per D'Chaillie		
20	Minimum Cost per B Channel		
21	Number of B Channels	·	
22	Manual of a distinction		
23	Investment per Port	LN18+LN20*LN21	
24			
25	Account Code for Investment		377C
26			
27	Conversion Factor - Investment to Cost	ACE Report 20, Total Monthly Cost/10,000	0.027047
28			gar ingeneral State of the
29	DMS Monthly Cost	LN23*LN27 ·	Commence of the Commence of th
30			A CONTRACTOR OF THE PROPERTY O
31	Meld Calculations	·	
32	Technology Distribution	D&F Database — NALs	00.50
33	5ESS		68.5%
34	DMS		31.5%
35		1114 4411100 41110041444	15202
36	Melded Monthly Cost	LN14*LN33+LN29*LN34	E STATE OF THE PARTY OF THE PAR
37			
38 39			
39 40			
4U			

1 Disk investment Description Fundamental Cost Source Amount 257C 25 Amount Cost Conversion Factor – Investment to Cost Account Code			
Fundamental Cost Fundamental Cost ACE Report 20, Total Monthly Cost/10,000 0.0 LN1*LN5	Description		Se troibo
ACE Report 20, Total Monthly Cost/10,000 0.0 LN 1*LNS		ı,	Amount
ACE Report 20, Total Monthly Cost/10,000 LN1*LN5		Fundamental Cost	
ACE Report 20, Total Monthly Cost/10,000 LN1*LN5	Account Code		. 2 2 4C
2 DSX bey terminetion.	Conversion Factor - Investment to Cost	ACE Report 20, Total Monthly Cost/10,000	0.030121
Note: 1 This is for 1/2 DSX bay termination.	Monthly Cost	LN1*LN5	
Note: † This is for 1/2 DSX bay termination.			
Note: 1 This is for 1/2 DSX bay termination.			·
Note: 1 This is for 1/2 DSX bay termination.			
Note: 1 This is for 1/2 DSX bey termination.			
	Note: ¹ This is for 1/2 DSX bay termination.		

State: Florida Workpaper: 30 Page: 1 of 1 Date:

.08/09/96

	A	$\mathcal B$	
LN	Description	Source	Amount
1 2	Nonrecurring Cost – First	WP31, LN30	
3	Nonrecurring Cost - Additional	WP32, LN30	
5	RTU Fees ¹		
6	Volume Sensitive	WP33, LN48	
7	Volume Insensitive	WP33, LN49	
8			
9			
10			
11		•	
12			
13			
14			
15			
16			
17 18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29	•		
30	Note: The RTU Fees can be ammortized over		
31	These unit recurring equivalent fees have bee	n added to the other recurring costs.	
32	This sum is displayed on WP20, LN7.		
33 34			
35			
22			

State: Florida Workpaper: 31
Page: 1 of 1
Date:

08/09/96

<u> </u>		4	В	Inflation	D	E	F
LN	Description	Hours	Labor Rate	Factor (WP34, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
1	Local Carrier Service Center (LCSC)						j
2	Installation	i i i ga da Santagar	\$38.30	1.0652	1.0152		اء ، مسجوبي
3	Disconnect		\$38.30	1.0652	1.0152	0.7338	
4							
5	Circuit Provisioning Center (CPC)						
6	Installation		\$34.41	1.0652	1.0152	A 770.00	
7	Disconnect		\$34.41	1.0652	1.0152	0.7338	
8							
9	Network Plug-in Administration (PICS)			4.0050	4.0460		
10	Installation		\$41.65		1.0152	0.7338	
11	Disconnect		\$41.65	1.0652	1.0152	0.7336	
12	00 t a 11 M						
13	CO Installation, Maintenance, & Administrati	on - Somware		4.0050	1.0152		
14	Installation		\$37.38 \$37.38	1.0652 1.0652	1.0152	0.7338	
15	Disconnect		\$37.30	1.0052	1.0132	0.7550	·*****
16 17							
18							
19							
20							
21							
22							
23							
24							
25							
25 26 27							
27							
28							
29							
30	Total Nonrecurring Sum(_N2LN15)					\$133.63
31	- The state of the	·					
32							

State: Florida Workpaper: 32 Page: 1 of 1 Date:

		A	B	Inflation	D	E	F
LN	Description	Hours	Labor Rate	Factor (WP34, LN19)	GRT Factor	Disconnect Factor	Nonrecurring Cost
1	Local Carrier Service Center	r (LCSC)					
2	Installation		\$38.30	1.0652	1.0152		
3	Disconnect		\$38.30	1.0652	1.0152	0.7338	
5	Circuit Provisioning Center	(CPC)					
6	Installation	•	\$34.41	1.0652	1.0152		
7 8	Disconnect		\$34.41	1.0652	1.0152	0.7338	
9	Network Plug-in Administra	ition (PICS)					
10	Installation		\$41.65	1.0652	1.0152		
11	Disconnect		\$41.65	1.0652	1.0152	0.7338	
12 13	CO Installation Maintenance	e, & Administration — Softwar	•				
14	Installation	o, a raminonation _ contrain	\$37.38	1.0652	1.0152		
15	Disconnect		\$37.38	1.0652	1.0152	0.7338	
16							
17 18							
19							
20							
21							
22 23							
24							
25							
26							
27							
28 29							
30	Total Nonrecurring	Sum(LN2LN15)					\$113.1
31	-	` ,					
32 33							
33 34		•					
35							

4W ISDN DS1 Port (PRI) Development of RTU Fee Costs

State: Florida Workpaper: 33 Page: 1 of 1 Date:

			Page: 1 of 1	
	i	8	Date:	08/09/96
LN	Description	Source		Amount
1	DMS100 RTU Fees	Contract PR6900		rancont
2	Per Office	***************************************		
3	NTX790AB	PRI Interface Base		
4	NTX793AA	Integrated Services Access		
5	NTX794AA	PRI/CCS7 Interworking		
6	NTN53AA	D Channel Back-up		
7	Total per Office	LN3+LN4+LN5+LN6		
8	·			
9	Per PRI			
10	NTX790AB	PRI Interface Base		
11				
12	Average PRIs per office	Model Office Input		
13				
14	SESS RTU Fees	Contract PR6700B		
15	Per PRI			
16	ISRIPRT (includes ISCCART)	ISDN Primary Rate Interface		
17	NISSPRI	NI2 - Basic (1% of Interfaces)		
18	SESS RTU per PRI			
19	MA A W BTHE			
20 21	Volume Sensitive RTU Fees DMS	LN10		
21 22	5ESS	LN15		
22 23	3599	ru 10		
23 24	Melded Volume Sensitive RTU Fee	LN21*LN27+LN22*LN28		
25		LIVET ENETT ENEE LIVEO		
26	Distribution	NALs		
27	DMS	111111111111111111111111111111111111111		31.5%
28	SESS			68.5%
29				
30	Monthly Interest Rate	Based on Annual 13.2% Rate		
31	Term (Months)	Economic Life of 377C Account		
32	GRT	Fundamental Cost Group		
33	Volume Sensitive Expressed as Unit Recurring	(@PMT(LN24,LN30,LN31))*LN32		
34				
35	Volume Insensitive RTU Fees			
36	DMS	LN7 ·		
37	5ESS	N/A		
38				
39	Melded Volume Insensitive RTU Fee	LN27°LN36+LN28°LN37		
40	sanda a Malana da a a latina a a DDA	I MODEL MAD		
41 42	Melded Volume Insensitive per PRI	LN39/LN12		
42 43	Volume Insensitive Expressed as Unit Recurring	(@PMT/I NA1 N20 N24\\4 N24		
44	tomes mesisone from as out seculing	(W. w./r.141/r.140/r.140/)]_FU05		
45	Total RTU per PRI, per Month	LN33+LN43		
46	in the fact that makes			
47	Note: If left as a nonrecurring cost the per PRI RTU fee t	would be:		
48	Volume Sensitive:	LN24*LN32		
49	Volume Insensitive	LN32"LN41		
50				

State: Florida Workpaper: 34
Page: 1 of 1
Date:

LN	Description	Amount	Amount	Amount
1	Labor Levelizing Factor Calculation	Year 1	Year 2	Year 3
2		•	1	1
3	Inward Movement	ı	•	•
5	Present Worth Factors ¹	0.8834	0.7804	0.6894
6 7				
8	Inflation our Vans (Labor)	1.032	1.035	1.034
9	Inflation per Year (Labor) Cummulative Inflation (Year 1, Year 1 * Year 2, etc)	1.032	1.068	1.104
10 11	Cummulaire initiation (1921 1, 1921 1 1921 2, 910)	11000	*	
12	Present Worth of Inward Movement (LN3*LN5)	0.8834	0.7804	0.6894
13	Present Worth of Cummulative Inflation (LN5*LN10)	0.9117	0.8335	0.7614
14 15	Present worth of Communicative mination (E145 E1410)	0.0111		
16	Sum of Present Worth of Inward Movement (Sum LN13)	2.35		
17 18	Sum of Present Worth of Cummulative Inflation (Sum LN14)	2.51		
19	Levelizing Factor (LN17/LN16)	1.0652		
20	Editional Indiana (Editional Indiana)			
21				
22				
23				
24				
25				
26				
27 28				
29				
30	1 Present Worth Factor = 1/(1+.0132) ^ n			
31	n = Year; 13.2% = Cost of Money			
32	• • • • • • • • • • • • • • • • • • • •	•		
33				
34	,			
35				

State: Florida Workpaper: 40 Page: 1 of 1 Date:

	₩.	В	C .
LN	Description	Source	Amount
1	Call Set-up Incremental BH Investment		
2	5ESS	WP41, LN6 ·	
3	DMS	WP42, LN6	
4			
5	Account Code for investment		3770
6			
7	Conversion Factor - Investment to Cost	ACE Report 20, Total Monthly Cost/10,000	0.027047
8			
9	Monthly Cost		
10	5ESS		
11	DMS		
12			
13	Technology Distribution	D&F Database - NALs	
4	5ESS		68.59
15	DMS		31.59
6			
17	Melded BH Call Set-up Cost	LN10°LN14+LN11°LN15 '	
18			
9	MOU incremental BH investment		
20	5ESS	No Incremental Cost	
21	OMS	No Incremental Cost	
22			
23	Monthly Cost		
4	5ESS	LN7*LN20	
5	DMS	LN7*LN21	
26			
27	Melded BH MOU Cost	LN14*LN24+LN15*LN25	
28			
29	Conversion of BH Cost to Any Time, Any Day		
30	Factors		, = =
31	BH/Full Day Ratio	Network Study (NCAT)	109
32	Days per Month	365/12	30.4
33			
34	Calculation		
35	Call Set-up	LN17*LN31/LN32	
36	MOU	LN27*LN31/LN32	
37	Out Charles and the desire of the port	LAIGE : LAIGO	
38	Cost for First Minute of Use (Incremental to POTS)	LN35+LN36	
39	Cost for Additional Minute (Incremental to POTS)	LN36	
40	Continue First Minute of Line (DOTS)	NICAT	
41	Cost for First Minute of Use (POTS)	NCAT	
42 43	Cost for Additional Minute (POTS)	NCAT	
43 44	Total Cost for First Minute of Use	LN38+LN41	
	Total Cost for Additional Minute		
45	INTER CASE IN VOCADOUS MINISTED	LN39+LN42	

State: Florida Workpaper: 41
Page: 1 of 1
Date:

	A	ß	Date: 08/09/96
LN	Description	Source	Amount
1	Incremental Cost of ISDN Usage		
2	5ESS Calculations		
3	Call Set-up		\
4	EPHC	_	ŀ
5		a.	'
6			
7			•
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18	Model Office Outputs	SCIS/MO Output	
19	IMO2 SM Realtime (ISDN SMs)		
20			
21			
22			
23	User input	Network	
24	IP1 BH Originating IAO Calls		
25	IP2 BH Originating IEO Calls		
26	IP3 BH Terminating Calls		
27			
28			
29			
30	SCIS/IN Database Items	A Alon Tobbo Man 2	
31	AT3 Realtime per EPHC	Assumption Table Item 3 Realtime Table Item 192	,
32	RS192 IAO Increment		;
33	R\$192.01 IEO Increment	Realtime Table Item 192.01 Realtime Table Item 192.02	
34	AS192.02 Terminating Increment	Meatume (ADIO Nom 192.UZ	
35			
36			
37			
38	EDUC - Equivalent DOTS half-sall		
39	EPHC = Equivalent POTS half-call.		

State: Florida Workpaper: 42
Page: 1 of 1
Date:

LN	Description	Source	Amount
1	Incremental Cost of ISDN Usage		
2	DMS Calculations		
3	Call Set-up		
4	Getting Started		
5	•		· · · · · · · · · · · · · · · · · · ·
6			*
7			· ·
8			
9			
10			
11			
12	•		
13	Model Office Outputs		· ·
14	MO1 Getting Started	SCIS/MO Output	
15			
16			
17			
18	User Input	Network	-
19	IP1 BH Origin ating IAO Calls	,	*
20	IP2 BH Originating IEO Calls		•
21	IP3 BH Terminating Calls		
22			
23			
24		•	
25	SCIS/IN Database Items		
26	RT192 IAO Incremental to L-L	Realtime Table Item 192	
27	RT192.01 L-T increment	Realtime Table Item 192.01	
28	RT192.02 Terminating Increment	Realtime Table Item 192.02	
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

SECTION 4F

	A	&	
N	Description	Source	Amount
1	Peak Costs 1		
2	NCAT Results (All Sands)	WP100, LN20	
3	Set-up	Column C + Column D	
4	Duration	Column E	
5			
6			
7	Adjustment Factors	Tab 6C, WP40, LN46	Total Calls
8	Set-up		Total Caus Total Minutes
9	Duration		I OIGI MAIGIGS
0		•	
1		•	
2	Adjusted Costs Set—up	ŁN3*(1+LN8)	
3	Set – up Duration	LN4*(1+LN9)	
4 5	Luration	LIVY (ITEMA)	
5 6	Peak Costs		
7	Initial Minute Cost	LN13+LN14	
Ġ	Additional Minute Cost	LN14	
9	Vanious music cost		
0			
21	Off - Peak Costs 1		
2	NCAT Results (All Bands)	WP100, LN23	
3	Set - up	Column C + Column D	
4	Duration	Column E	
25			
6			
7	Adjustment Factors	Tab 6C, WP40, LN46	
8	Set-up		Total Calls
9	Duration		Total Minutes
0			
11			
2	Adjusted Costs	4.44.004.4.44.00	
13	Set -up	LN23*(1+LN28)	
14	Duration	LN24*(1+LN29)	
15	OH Book Coats		
16	Off—Peak Costs Initial Minute Cost	LN33+LN34	
17 18	Additional Minute Cost	LN34	
19 19	VARINIEI MUSIC COST	LITUT	<u>.</u>
10			-
11	Note:		
2		M, 9PM-9AM, and all day Saturday and Sunday.	
3	The exceptions are considered off-peak.		
14			

STATE: FLORIDA WORKPAPER: 100 PAGE: 1 OF 1 DATE: 23-JUL-96

					ι	INIT COST SU	MMARY	
	(A)	(8)	(0)	(D)	(E)	(F) ≖(C+0+€)	(G) =(E)	
1	DISTANCE	RP	COST/MSG	EXP/MSG	COST/MIN	COST /	COST /	
2	BAND	(Hrs.)	(SETUP)		DURATION	FIRST MIN	ADDL MIN	
3- 4					*******			
5	LAO	09-11						
6	••••	14-20	t					
7		08	ري. نيمان پي <u>ان</u> ي يورس	- المالية المساهدية	. 24			
8		12-13						
9		21-07					٠٠٠٠٠٠ د الارتابات	÷
10		AVG	•				• : •	•
11								
12	0.0-9999.9	09-11						
13		14-20	<u> </u>					
14		08						
15		12-13						
16		21-07	ŧ					
17	•	AVG						
18			**	. •"				
19	ALL	09-11					and the	
20		14-20	***					
21		80						
22		12-13						
23		21-07	,					
24		AVG						

PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT BY WRITTEN AGREEMENT

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HETWORK COST ANALYSIS TOOL (NCAT)

STATE: FLORIDA WORKPAPER: 200 PAGE: 1 OF 2 DATE: 23-JUL-96

				Ť	RAFFIC SENSI	TIVE UNIT	COST - SET	UP RELATED	
	(A)	(B)	(C)	(0)	(E)	(F)	(G)	(H)	(1)
		=(D	+E+F+G+H+	1)					
1	DISTANCE		TOTAL		SWETCHEN	3	TRUN	KING	
2	BAND	RP		EO	TOM	MEAS	FAC	TERM	SS7
7.									
,									
4		09-11							
5	0.0								
6		14-20 AVR	1						
7		AVG	7		_				-
8									
9	1.0-9999.9	09-11							
10		14-20	,						
11		AVG	ž.						
12			-		_				
13	ALL	09-11							
	755	14-20					-	/ T	
14			·						
15		08							
16		12-13					-		
17		21-07							
18		AVG	•						
_									

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STATE: FLORIDA WORKPAPER: 200 PAGE: 2 OF 2 DATE: 23-JUL-96

				1	RAFFIC	SENSITIVE	UNIT	COST	- DURATIO	N RELATED
	(A)	(B)	(C)	(D)		(E)	(F)		(G)	(H)
		=(D+E+F+G+H))						
1	DISTANCE		TOTAL		sw	ITCHING		· ··	TRUNKI	NG
2	SAND	RP		EO		TDM	MEAS		FAC	TERM
3-					••••			• • • • • • • • • • • • • • • • • • • •	******	******
4										
5	0.0	09-11								
6		14-20								
7		AVG -								_
8				-						CALS.
9	1.0-9999.9	09-11								
10		14-20								
11		AVG								
12			- Jan	-			•			
13	ALL	09-11								
14		14-20								
15		08 `								
16		12-13								
17		21-07								
18		AVG								
-		-								reserve to a

PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT BY WRITTEN AGREEMENT

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SECTION 5

SECTION 5

SPECIFIC STUDY ASSUMPTIONS

FLORIDA UNBUNDLED PORTS COST STUDY DOCUMENTATION

The cost studies are based on incremental economic theory and assumptions, plus specific Network deployment strategies, first choice provisioning guidelines, and equipment purchasing information.

Cost study assumptions are as follows:

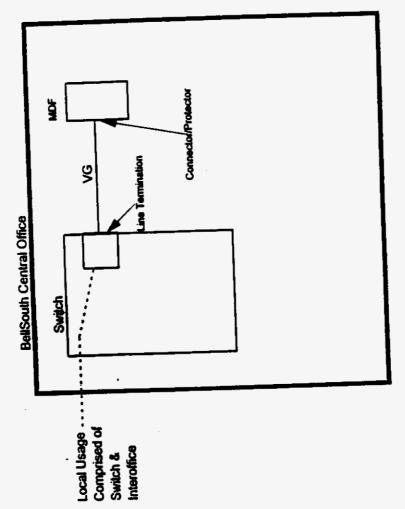
- 1. The cost of money is 13.2%, the forward-looking incremental cost to the firm.
- 2. The port costs developed do not provide any feature functionality. Only the cost to provide a physical connection to the switch have been considered.
- 3. Network usage is required to gain access to the switch network. The 2-wire digital ISDN port usage is strictly for circuit-switched traffic. The nonrecurring cost to configure ISDN channels per individual customer specifications is not included.
- 4. RTU fees have been included where applicable to account for the expense which must be paid to the switch vendors upon termination.
- 5. The nonrecurring cost development utilizes a service specific location life; impacts discounted disconnect factor. The nonrecurring costs for the 2W Analog port and the 2W ISDN port include the establishment of telephone numbers.
- 6. Alternative Network Serving Arrangements, ANSA, have not been considered in the ISDN ports.

Local Measured Usage

- 1. Trunk attempt and CCS (Centum (100) Call Seconds) busy hours are the same as the originating office attempt and CCS busy hours.
- 2. Measurement equipment attempt and CCS busy hours are the same as the attempt and CCS busy hours for the corresponding switch. The measurement equipment is assumed to be LAMA, Local Automatic Message Accounting.
- 3. The ratio of average busy season daily traffic load to average business day traffic load is 1.1:1.

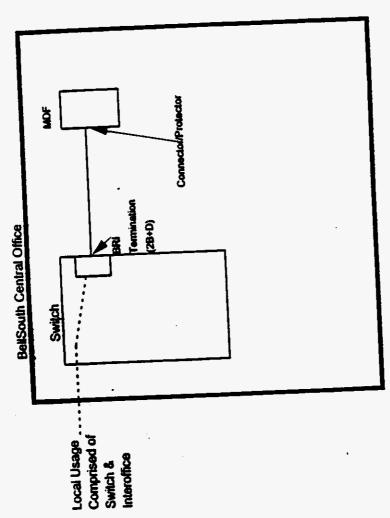
F23B01X 000221

- 4. All tandems are assumed to perform both originating and terminating functions.
- Signaling System 7 (SS7) is assumed for all trunks.
- 6. Interoffice trunks are engineered to overflow six percent of the peak traffic load.
- Trunk utilization is eighty-five percent.
- 8. A stimulation rate of ten percent is used to obtain a meaningful and manageable increment of usage.
- 9. When switch-specific investments are not available, a technology-specific weighted investment is used.
- 10. Replacement switch technology is assumed for each end office and tandem office.
- 11. The number of digits sent per outgoing call is 7.
- 12. The number of digits received is 7.
- 13. The grade of service is 0.01.
- 14. The number of annual business days is 250 (i.e., excludes weekends and holidays).
- 15. Average business day load to average calendar day load is 1.177:1.
- 16. The number of digits dialed is 7.

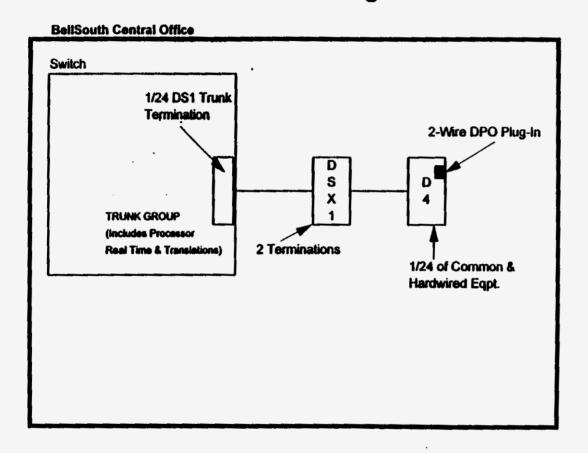


11

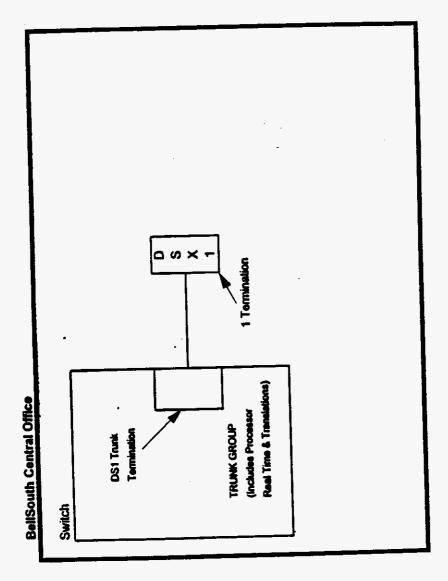
Unbundled 2-Wire ISDN Digital Line Port



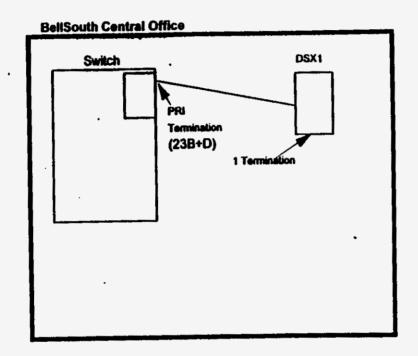
Unbundled 2-Wire Analog DID Trunk Port



Unbundled 4-Wire DS1 DIGITAL DID Trunk Port



Unbundled 4-Wire ISDN DS1 Digital Trunk Port



SECTION 6

SECTION 6

COST STUDY DOCUMENTATION FACTORS AND LOADINGS

UNBUNDLED EXCHANGE PORTS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the Unbundled Exchange Ports cost study. Also included is the development of the conversion factor and the adjustment factor for unbillable calls.

SECTION 6A

SECTION 6A

LABOR RATES, LABOR INFLATION, ETC. FLORIDA

Directly Assigned Labor Rates - 1995				
Work Center		Job Function Code		Rate
CO Install, Maintenance & Administration	- Software	432X		\$37.38
Circuit Provisioning Center (CPC)	•	470X		\$34.41
Switching Control Center (SCC)		432X		\$37.38
Frame Control Center		434X		\$36.05
CO Install & Maintenance - Carrier & Facil	lity	431X		\$39.09
Local Carrier Service Center (LCSC)	•	2300		\$38.30
Facilities Assignment (FACS)		400X		\$31.28
Network Plug-in Administration (PICS)		341X		\$41.65
Network Services Clerical (SOP89)		2700		\$30.21
Special Services Coordinate & Test (SSC)		471X		\$36.41
Discounted Disconnect Factor	Location Life		Factor	
Residence	25 Months		.9114	
Business	29 Months		.8981	
PBX & DID (2W & 4W)	54 Months		.8193	
2W ISDN	60 Months		.8014	
4W ISDN	74 Months		.7338	
Labor Inflation Rate				•
1996	1.032			
1997	1.035			
1998	1.034			
Inflation I qualified Postors				
Inflation Levelizing Factors	1.0652			
Labor	1.0032			
Digital Switch Equipment (377C)				
Digital Circuit Equipment (357C)	.9700			
Loading Factors				
InPlant (Telco)	1.1236			
InPlant (Hardwire)	1.8700			
InPlant (Plug-in)	1.0600			
Common Equipment & Power (377C)	1.0962			
Common Equipment & Power (357C)	1.1202			
Building Loading	.0404			
Land Loading	.0030			
•				
Annual Cost Factors				
Annual Cost 10C (Building)	.1772			
Annual Cost 20C (Land)	.1951			
Annual Cost 357C (Digital Circuit)	•	s TIRKS Expense of .0052)	
Annual Cost 377C (Digital Switch)	.2520			

SECTION 6B

Study Number:

State Tariff Ref

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 ACE REPORT 20

Page 1 5/15/96

Modifier USOC

Technology Volume Sensitivity Economic Type Investment Basis

DIR

	INVESTMENT DATA					AMBRUAL COST FACTORS						ANNUAL EXPENSES						
Field Code	St	Capital Investment	Operating Investment	Date	Depr.	C.O.N.	inc Tax Factor	MECE.	Admin	AdVal	GRT	Depr.	C.O.H.	Inc Tax Expense	MCCe.	Admin	Adval	GRT Expense
10C 20C	PL PL	600.61	600.61		.0302 0.0000 .1134	.1110	.0452	0.0000	0.0000	.0113	.0152	18.14 0.00 1,685.88	4.39	2.29	0.00	0.00	.50	.12
257C SUPPLAR		ADJUSTE	D TOTAL INVE	STICENT				1:	5,512.0	 1		•••••		•				
			OPERATING EX		Cost of I Income To Maintenan	Honey ax Expe ace Exp	nse nnse	:	1,009.7 457.6 136.4	0 6								
			eceipts Tax		Administ		_		77.3: 175.2: 54:1: 3,614.5:	E 2	TOTAL	, MONTHLY (COST:	301.21				

F23B01X 000233

NOTES: 1. Capital and Operating Investments are the BOOKED INVESTMENTS from ACE Report 10.

- 2. Depreciation, Cost of Money, and Income Tax Expenses Capital Investment multiplied by the corresponding Annual Cost Factor.
- 3. Maintenance, Administrative, and Ad Valorem Expenses Operating Investment multiplied by the corresponding Annual Cost Factor.
- 4. Gross Receipts Tax Gross Receipts Tax Factor multiplied by the sum of Capital Costs and Operating Expenses.

NOTICE: NOT FOR USE OR DISCLOSURE OUTSIDE BELLSOUTH WITHOUT WRITTEN AGREEMENT.

USOC INVESTMENT DETAILS

Study Number:

FL

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 ACE REPORT 10

Page 1 5/15/96

State Tariff Ref

USOC

Modifier

Technology

Vol. Sens. Economic Type Investment Basis

DIR

	PRIMARY INVE	STIMENT DATA			IMV	esthent (OADING PA	ctors	SUPPORT	STRUCTURE LOAD	DINGS	BOOKED I	INVESTMENTS	
Field Code	Description	Capital . Investment	Operating Investment	Date	FC Factor	InPlant Pactor	InPlant Type	CE4P Pactor	_	Loading Type	Pield Code	Capital Investment	Operating Investment	•
357C	SAMPLE OF \$10,000 - Support Loading> - Support Loading>	10,000.00	10,000.00	5/08/96 5/08/96 5/08/96	.9700	1.#700	н	1.1202	.0404	circuit_bldg circuit_land	10C 20C	20,319.31 820.90 60.96	20,319.31 820.90 60.96	• - -
••••				• • • • • • • • • • • • • • • • • • • •					ADJUS	TED TOTAL INVES	THENT:	21,201.17	21,201.17	-

F23B01X 000234

NOTES: 1. The BOOKED INVESTMENT for PRIMARY INVESTMENTS is calculated by multiplying the PRIMARY INVESTMENT by the applicable INVESTMENT LOADING FACTORS.

- 2. The BOOKED INVESTMENT for SUPPORT STRUCTURE LOADINGS is calculated by multiplying the applicable Loading Factor by the sum of INVESTMENTS for each primary Field Code.
- 3. InPlant Factor types: T Telco, C Material Composite, H Material Hardwire, P Material Plugin
- 4. The FC factor is the levelized inflation factor for investments.

USOC INVESTMENT DETAILS

Study Number:

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 ACE REPORT 10

Page 2 5/15/96

State Tariff Ref

USOC

Modifier

Technology Vol. Sens. Economic Type Investment Basis

VS DIR

PRIMARY INVESTMENT DATA						ESTMENT L	OADING FA	CTORS	SUPPORT	STRUCTURE LOAD	BOOKED INVESTMENTS		
Pield Code Descri	iption .	Capital Investment	Operating Investment	Date	PC Pactor		InPlant Type		Loading Factor	Loading Type	Field Code	Capital Investment	Operating Investment
357C - Suppo	OF \$10,000 ort Loading>	10,000.00	10,000.00	5/08/96 5/08/96 5/00/96	. 9700	1.0600	P	1.1202		circuit_bldg	10C 20C	11,517.90 465.32 34.55	11,517.90 465.32 34.55
							•••••		ADITIS	TRD TOTAL INVES		12 012 22	12 013 23

F23B01X 000235

- NOTES: 1. The BOOKED INVESTMENT for PRIMARY INVESTMENTS is calculated by sultiplying the PRIMARY INVESTMENT by the applicable investment LOADING PACTORS.
 - 2. The BOOKED INVESTMENT for SUPPORT STRUCTURE LOADINGS is calculated by multiplying the applicable Loading Factor by the sum of INVESTMENTS for each primary Field Code.
 - 3. InPlant Factor types: T Telco, C Material Composite, H Material Hardwire, P Material Plugin
 - 4. The FC factor is the levelized inflation factor for investments.

USOC ANNUAL COST DETAILS

Study Number:

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 ACE REPURT 20 Page 1 5/15/96

State Tariff Ref USOC Modifier Technology Volume Sensitivity Economic Type Investment Basis

FL A VS DIR

		INVESTMENT DATA ANNUAL CO					COST F	COST FACTORS							annual expenses			
Pield Code	St	Capital Investment	Operating Investment	Date	-		inc Tax Pactor					•	Expense	-	Expense	Admin Expense	-	GRT Expense
10C 20C 357C	PL PL PL	820.90 60.96 20,319.31	\$20.90 60.96 20,319.31		0.0000	.1110	.0452 .0514 .0297	0.0000	6.0000	.0113		24.79 0.00 2,304.21	60.94 6.82	37,10 3,13	5.66 0.00	0.00	9.28 .69	2,40
SUMMAR	 l¥:		D TOTAL INVI		Deprecia		penäė	2	1,201.17 2,329.00	7							• • • • • • • • • • • • • • • • • • • •	••••••
		AMPRIAL :	Cost of Money Income Tax Expense OPERATING EXPENSES: Maintenance Expense Administration Expense			1,344.13 643.72 180.41 105.66	2 L											
			eceipta Tax MANUAL COSTS	•	Ad Valor	em and (Other Ta		239.51 74.21 4,956.71	l	TOTAL	, HONTHLY	Cost:	413.06				

F23B01X 000236

NOTES: 1, Capital and Operating Investments are the BOOKED INVESTMENTS from ACE Report 10.

- 2. Depreciation, Cost of Money, and Income Tax Expenses Capital Investment multiplied by the corresponding Annual Cost Factor.
- 3. Maintenance, Administrative, and Ad Valorem Expenses Operating Investment multiplied by the corresponding Annual Cost Factor.
- 4. Gross Receipts Tax 4 Gross Receipts Tax Factor multiplied by the sum of Capital Costs and Operating Expenses.

USOC ANNUAL COST DETAILS

Study Number:

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 ACE REPURT 20

Page 2 5/15/96

State Tariff Ref USOC Modifier Technology Volume Sensitivity Economic Type Investment Basis

FL B VS DIR

	INVESTMENT DATA				ANDRUAL COST FACTORS							ANNUAL EXPENSES						
Field Code	St	Capital Investment	Operating Investment	Date	•		Inc Tax Pactor					Depr.	C.Q.M.	Inc Tax		Admin Expense	Adval Expense	GRT Expense
10C 20C	PL PL	465.32	465.32		8.0000	.1114		0.0000	0.0000	.0113	.0152	14.05 0.00 1,306.13	3.46	1.70	0.00	0.00	. 39	,09
SUPPLAN	PL RY:		D TOTAL INVI			.0634		1:	.,0032 2,017.7 1,320.1	 7					99.05	59.89	130,15	40.62
		AMBRIAL CAPITAL COSTS: Depreciation Expense Cost of Honey Income Tax Expense AMBRIAL, OPERATING EXPENSES: Maintenance Expense			784.55 364.85 102.26	9 9 ·						•						
٠			eceipte Tax		Administ: Ad Valor		•		59.89 135.00 42.01 2,809.60	0 7	TOTAL	. MONTHLY	Cost;	234.14				

F23B01X 000237

NOTES: 1. Capital and Operating Investments are the BOOKED INVESTMENTS from ACE Report 10.

- 2. Depreciation, Cost of Money, and Income Tax Expenses Capital Investment multiplied by the corresponding Annual Cost Factor.
- 3. Maintenance, Administrative, and Ad Valorem Expenses Operating Investment multiplied by the corresponding Annual Cost Factor.
- 4. Gross Receipts Tax Gross Receipts Tax Factor multiplied by the sum of Capital Costs and Operating Expenses.

USOC AMBRUAL COST DETAILS

Study Number:

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 ' ACE REPU... 20

Page 1 5/15/96

State Tariff Ref \$10,000

USOC Modifier Technology Volume Sensitivity Economic Type Investment Basis

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	INVESTMENT DATA ANNUAL CO				COST P	ACTORS					ANNUAL EXPENSES							
Field Code	St	Capital Investment	Operating	Date	-		Inc Tax					Depr. Expense	C.O.H.	Inc Tax		Admin Expense	Adval Expense	GRT Expense

10C	PL	503.57	543.57		,0302	.0986	.0452	. 0069	0.0000	.0113	.0152	15.21	49.65	22.76	3.47	0.00	5.69	1.47
20C	PL	37.39	37.39		0.0000	.1118	.0514	0.0000	0.9000	.0113	.0152	0.00	4.18	1.92	0.00	0.00	.42	. 10
377C	FL	12,464.71	12,464.71		.1134	.0651	.0302	.0282	0.0000	.0113	.0152	1,413.50	\$11.45	376.43	351.50	0.00	140.85	47.02
SUPPLAS		ADJUSTE	d total invest	NEDIT	•				3,005.6		• • • • • • • • • • • • • • • • • • • •	******						••••••
		YNDRIAL	CAPITAL COSTS	1	Deprecia		pense		1,420.7									
					Cost of I	_	R ata		865.2 401.1									
		AMMIAL	OPERATING EXP	enses :	Maintena	uce Exb	anse.		354.9	•								
					Administ	ration !	Expense		0.0	0								
					Ad Valor	em and	Other Ta	xes	146.9	6								
		· Gross R	eceipts Tax						40.6	0								
		TOTAL A	MOTURAL COSTS						3,245.6	5	TOTAL	HOSTHLY	COST:	270.47				

F23B01X 000238

- NOTES: 1. Capital and Operating Investments are the BOOKED INVESTMENTS from ACE Report 10.
 - 2. Depreciation, Cost of Money, and Income Tax Expenses Capital Investment multiplied by the corresponding Annual Cost Factor.
 - 3. Maintenance, Administrative, and Ad Valorem Expenses Operating Investment multiplied by the corresponding Annual Cost Factor.
 - 4. Gross Receipts Tax Gross Receipts Tax Factor multiplied by the sum of Capital Costs and Operating Expenses. NOTICE: NOT FOR USE OR DISCLOSURE OUTSIDE BELLSOUTH WITHOUT MRITTEN AGREEMENT.

USOC INVESTMENT DETAILS

Study Number:

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 MUE REPORT 10

Page 1 5/15/96

Tariff Ref State

\$10,000

USOC

Modifier

Technology Vol. Sens. Economic Type Investment Basis

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	PRIMARY INVEST	MENT DATA			INV	estment l	CADING PA	CTORS	SUPPORT	STRUCTURE LON	· -	-	INVESTMENTS
Pield Code	Description .	Capital Investment	Operating Investment	Date	PC Pactor	InPlant Pactor	InPlant Type		Loading Factor		Field Code	Capital	Operating
377C 377C	SAMPLE OF \$10,000 - Support Loading>	10,960.90	10,000.00	5/07/96 5/07/96	1.0120	1.1236	T	1.0962	. 0404	awitch_bldg	10C	12,464.71 503.57	12,464.71 503.57
377C	- Support Loading>			5/07/96		•			.0030	switch_land		37.39	37.39

NOTES: 1. The BOOKED INVESTMENT for PRIMARY INVESTMENTS is calculated by multiplying the PRIMARY INVESTMENT by the applicable INVESTMENT LOADING FACTORS.

^{2.} The BOOKED INVESTMENT for SUPPORT STRUCTURE LOADINGS is calculated by multiplying the applicable Loading Factor by the sum of INVESTMENTS for each primary Field Code.

^{3.} InPlant Factor types: T - Telco, C - Material Composite, H - Material Hardwire, P - Material Plugin

^{4.} The FC factor is the levelized inflation factor for investments.

USOC INVESTMENT DETAILS

Study Number:

Study Name: SAMPLE OF \$10,000 Tariff Element: SAMPLE OF \$10,000 nCE REPORT 10 Page 1 5/15/96

State Tariff Ref USOC Modifier Technology Vol. Sens. Economic Type Investment Basis

PL

	PRIMARY INVEST	DEST DATA ·			IMV	ESTMENT I	LOADING PA	CTORS	SUPPORT	STRUCTURE LOA	DINGS	BOOKED 1	INVESTMENTS	
Field Code	Description	Capital Investment	Operating Investment	Date	PC Pactor	InPlant Pactor	InPlant Type	•	Loading Pactor	Loading Type	Pield Code	Capital Investment		
257C 257C 257C	SAMPLE OF \$10,000 - Support Loading> - Support Loading>	10,000.00	10,000.00	\$/00/96 \$/04/96 \$/00/96	.9620	1.5212	Н	1.0159	.0404	circuit_bldg	10C 20C	14,866.62 600.61 44.60	14,466.62 600.61 44.60	• • •
	•								ADJUS	TED TOTAL INVES	STMENT:		15,511.84	•

DIR

٧s

NOTES: 1. The BOOKED INVESTMENT for PRIMARY INVESTMENTS is calculated by multiplying the PRIMARY INVESTMENT by the applicable investment LOADING FACTORS.

- 3. InPlant Factor types: T Telco, C Material Composite, H Material Hardwire, P Material Plugin
- 4. The FC factor is the levelized inflation factor for investments.

^{2.} The BOOKED INVESTMENT for SUPPORT STRUCTURE LOADINGS is calculated by multiplying the applicable Loading Factor by the sum of INVESTMENTS for each primary Field Code.

SECTION 6C

oundled Exclopment ustment F		Costs by Class of Ser	vice &					Workpaper	1 of 1
		A	B	$^{\circ}$	\mathcal{D}	É	۴	G	·
Resid Measu Measu Flat E911	red	Calls/LN	Min/Cati	Lines	Total Calis	Total Minutes			
Total	ge — Residential						NCAT ¹ \$/S at -up	NCAT I \$/MOU	\$/Month
)							•	* *	
Busin Busin Messa Flet E911	red	Calls/UI	Min/Call	Lines	Total Calls	Total Minutes			
Total							NCAT ¹ \$/Set-up	NGAT 1 \$/MOU	\$/Month
) Avera; i 2	ge — Business						,		
PBX Measu Measu Measu Flat Flat Figure		Calls/LN	Min/Call	Lines	Total Calls	Total Minutes			
3 9 Total 0							NCAT ¹ \$/Set-up	NCAT ¹ \$/MOU	\$/Month
1 Avera ; 2 3	ge PBX						•		
t Cain 5 Public 5 E911	; & Semi-Public	Calls/LN	Min/Call	Lines	Total Calls	Total Minutes			
7 B. Total 9							NCAT ¹ \$/Set-up	NCAT ¹ \$/MOU	\$/Month
0 Avera 1 2 3	ge — Coin								
4 Calcu 5 Unbil 6 Facto	dation of Adjustme lable Calls r	ent Fa <i>c</i> tor E911 Unbilable/Bilable			Set-Up	Duration			
)7 8 Notes 9 ¹ NC/		erage costs, i.e. all rate ;	periods.						

FLORIDA



UNBUNDLED LOOP
CHANNELIZATION SYSTEM
AND CENTRAL OFFICE
CHANNEL INTERFACE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE

COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING
SECTION 5	COST DEVELOPMENT - NONRECURRING
SECTION 6	SPECIFIC STUDY ASSUMPTIONS
SECTION 7	FACTORS AND LOADINGS

SECTION A

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SECTION A

111

FLORIDA UNBUNDLED LOOP CHARMELIZATION SYSTEM AND CENTRAL OFFICE CHARMEL INTERFACE

PROPRIETARY RATIONALE

The Florida Unbundled Loop Channelization System and Central Office Channel Interface Cost Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing this element on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage in that they would know the price or rate below which BellSouth could not provide the service. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies concerning access services. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendorspecific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Florida Unbundled Loop Channelization System and Central Office Channel Interface Cost Study is considered proprietary.

13 1

FLORIDA UNBUNDLED LOOP CHANNELISATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERPACE

INTRODUCTION AND OVERVIEW

This Long Run Incremental Cost study for the Unbundled Loop Channelization System and Central Office Channel Interface in the state of Florida is being provided in response to Docket No. 950984-TP Order No. PSC-96-0444-FOF-TP Issued March 29, 1996.

The Unbundled Loop Channelization System and Central Office Channel Interface is an arrangement offered to the Alternative Local Exchange Companies (ALECs) for the purpose of channelizing multiple Digital Loop Carrier 1.544 Mbps channels on a non-concentrated or concentrated basis up to a maximum of 96 channels per system. These channels are only available for connection to Unbundled Access Loops, voice grade only. Included in this cost study and associated with the Unbundled Loop Channelization System is the Central Office Channel Interface. The Unbundled Loop Channelization System requires a Central Office Channel Interface for each channel of lesser (voice grade) capacity.

Recurring costs presented in this study are directly assigned, incremental and levelized so as to be appropriate for the 1996-1998 study period. Nonrecurring costs follow the same convention and represent 1996-1998 level costs also. These long-run incremental costs are developed by using 1995 level incremental loadings and annual cost factors based on 13.2% Cost of Money and directly assigned labor rates.

FLORIDA UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting the Florida Unbundled Loop Channelization System and Central Office Channel Interface.

All costs are developed utilizing Long Run Incremental Cost methodology. In determining these costs, direct incremental costing techniques are used that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternately, costs that would be saved if the production levels were reduced. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to insure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and therefore are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for the Unbundled Loop Channelization System and Central Office Channel Interface is to determine the forward-looking network architecture. Material prices for the equipment are defined. Next, account specific Telephone Plant Indices are applied, when necessary, to trend investments to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor. The deployment probabilities, capacity, spare stock and utilization of the equipment are also considered.

Plant account specific Investment Inflation Factors are applied to the installed investments to trend the base year, or study year, investments to levelized amounts that are valid for a three to five year planning period. Appropriate loadings for land, building and miscellaneous common equipment and power are then applied.

Next, 1995 level Florida Intrastate Incremental Annual Cost Factors are used to calculate the direct cost of capital (in this case, 13.2%), ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each USOA FRC) are applied to levelized investments by account code, yielding an annual cost per account code. These costs are then divided by twelve to arrive at a monthly cost per cost element.

THE DEVELOPMENT OF NONRECURRING COSTS

Nonrecurring costs are "one-time" costs incurred as a result of provisioning, installing, and disconnecting the Unbundled Loop Channelization System and Central Office Channel Interface. The first step in developing nonrecurring costs is to determine the cost elements related to the study. These cost elements are then described by all of the individual work functions required to provision the cost element. The work functions can be grouped into four categories. These are service order, engineering, connect and test, and technician travel time. The work function times, identified by subject matter experts, are used to describe the flow of work within the various work centers involved. Installation and provisioning costs are developed by multiplying the work time for each work function by the directly assigned 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. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

11

PLORIDA UMBUMDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE

SUNCERT OF RESULTS

This section contains a cost summary for both recurring and nonrecurring cost elements studied for the 1996-1998 Unbundled Loop Channelization System and Central Office Channel Interface for Florida.

FLORIDA UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE

SUMMARY OF RESULTS

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Monthly Cost Nonrecurring Cost First Additional

Channelization System

Central Office Channel

Interface - Voice

FLORIDA UNBUMBLED LOOP CHARMELIZATION SYSTEM AND CENTRAL OFFICE CHARMEL INTERPACE

COST DEVELOPMENT - RECURRING

This section defines the cost development of the recurring costs for the Florida Unbundled Loop Channelization System and Central Office Channel Interface.

Generally, economic cost development is outlined in Section 2. Network architecture is determined, the necessary equipment is identified, material prices are obtained, factors, utilization and loadings are applied and the result is levelized for the study period. Annual cost factors are applied to convert the investment to cost.

Recurring costs are developed for the system and for the voice grade feature activation. The system is a TR303 96 capacity digital loop carrier remote terminal. Since the system is located in the central office, bulk power is not required. The system cost includes the hardwired equipment and the common plug-ins. The Voice (Unbundled Exchange Access) Central Office Channel Interface is based on a Plain Old Telephone (POTS) plug-in. Since the interface cost element is per circuit and the plug-in serves two voice grade circuits, the monthly cost is divided by two.

The following workpapers develop the investment, convert the investment to monthly costs, and summarise the results.

UNBUNDLED LOOP CHANNELIZATION SYSTEM AND

CENTRAL OFFICE CHANNEL INTERFACE

Page: 1 OF 1 COST SUMMARY Date: May-96 Ln DESCRIPTION SOURCE 2 (CONCENTRATED AND NON-CONCENTRATED) 4 System - Capacity 96 Voice Grade Circuits Wp200 Pg1 Ln 10 Cal O 8 Working Plug-in for 96 capacity system serves 2 POTS lines Cost per Circuit Wp200 Pg2 Ln 10 Col C 8 9 10 11 12 13 14 15 Note: 16 Concentrated is Mode II. 17 Non-concentrated is Mode I. 18 19 20 21 22 23

State:

Workpaper.

Florida

UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE MONTHLY UNIT COST DEVELOPMENT

Florida State 200 Workpaper 1 OF 2 Page. Date May 96

MONTHLY

RATE ELEM	FMT:	Svetem	Capacity M.	Voice Grade Circ	alia.										MONTHLY
AND I P. STATES		-,	- - ,	••••					ANNUAL CO	STS					CO\$1
A		B Account	c	D '	E-C'FACTOR	F-C'FACTOR	G=C*FACTOR	H=E+F+G Capital	I-C'FACTOR	J-C'FACTOR Ad Valorum	K-C'FACTOR	L=I+J+K Operating	M*C*FACTOR	N=H+L+M	O=N/12
La Description:		Cade	investment.	Beurce	<u>Descectation</u>	COM	IAL	Expense	Majojonance		TIRKS Exe.	Expense	GRI	Total	and the same and the same
1 2 Installed investo 3 96 capacity syst		357C	•	Wp300 Pg1 Ln 30	- Marie 201	No Marco (Alexa)	医水杨 罗	"SHIP			·		The grade of the second		eneme n enem edia
4 (Mode I or Mode 5 6 Land	i)	30C	<u> </u>		.	\$			18 -	\$:			3
7 8 Buildings		10C	\$	Wp300 Pg1 Ln 36	ففاحتها وديب	- MONTE SE			-			\$			
9 10 Total				•		- WASH	es allignes wh	and the second of the second		E e	-	e e di la	Total per Circus	t	

UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CERTRAL OFFICE CHANNEL INTERFACE MONTHLY UNIT COST DEVELOPMENT

State: Workpaper: Page: Dale:

Florida 200 2 OF 2 May-96

RATE ELEMENT: Working Plug in for \$6 capacity system - Serves 2 POTS lines

	RATE ELEMENT:	MOLKIN	g Pi	iug-in W	at are cobstants sha	april -	OGIVES A	L TO 10 IMMES			ANNUAL	COSTS					COST
	A			C	D	E-C	FACTOR	F-C'FACTOR	G-C'FACTOR	H=E+F+G Capital	I-C'FACTOR	J-C*FACTOR Ad Valorum	K-C'FACTOR	L=i+J+K	M-C'FACTOR	N=H+L+M	O=N/12
Ĺ	Osscription:	Account <u>Code</u>	İm		Bource	Dag	recistion	COM	Tax	Expense	Maintenance		TIRKS E.D.	Expense	GRI	Total	-
	1 2 Installed investment	367C	\$	1	Wp300 Pg2 La 24	\$				~		es espe	1000000000000000000000000000000000000	THY T. R.GOLF		Sec entered	24022 2
	4 Land	20C	\$	•	Wp300 Pg2 Ls 27	•	्रांग्यक्र	and the second of the second o	. •		- 150m		re.	7.4	321-65-64		
	6 Buildings	10C	\$: Wp300 Pg2 (a 30		-		الوريد. دونونونونونون	*1.		· Parent	<u> </u>			A Control	*****
	8 Total		\$	1	Total Ln 2, 4, 6		-1 -1		,				₽ ,₽ ⁴ **	- इपुर		Sept.	* فينتهب
4	# I& Total per Circuit		8	Ą	in a Col 0/2										•		

12 13 NOTE:

14 FACTOR = ACF Located in Wp201pg1

15 16 17

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UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE ANNUAL COST FACTORS

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State: Florida
Workpaper: 201
Page: 1 OF 1
Date: May-96

Ln Description	Code	<u>Depreciation</u>	COM	inc. Tax	Cap, Expense	<u>Maintenance</u>	Adval. Tax	TIRKS Exp.	Opr. Expense	GKI	Torai
1 2 Digital Circuit 3 Buildings 4 Land	357C 10C 20C	0.1134 0.0302 0.0000	0.0638 0.0986 0.1118	0,0297 0.0452 0,0514	0.2069 0.1740 0.1632	0.0086 0.0069 0.0000	0.0113 0.0113 0.0113	0.0052 0.0000 0.0000	0.0251 0.0182 0.0113	0.0035 0.0029 0.0027	0.2355 0.1951 0.1772

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State Work Paper	Florida 30 0
Page	1 of 2
Date	May 9

		Α	B	C
Ln	Description	Result	FRC	Source
				
•	Material Price		∳ 357C	Network
	Hardwired		357C	Network
3	Common Plug-ins			
4	Misc Material Loadings for Common Plug-ins		0.10	Network
5	Total Material Price for Common Plugs	\$ -	7357C	(1+Line 5)*Line 3
	Total Material Price for Common 1 22			
7 8	Telephone Plant Index		1.00 357C	Network
9	Hardwired Material Price-Base Year	\$	₹357C	Line 2°Line 8
10	Common Plug-In Material Price-Base Year	\$)357C	Line 6*Line 8
11				
12	in-Plant-Factors		4 50 3570	Network
13	Hardwired		1.50 357C 1.25 357C	Network
14	Common Plug-Ins		1.25 3570	Hamour
15			·	
16	Installed Investment		}357C	Line 13°Line 9
17	Hardwired		357C	Line 14°Line 10
18	Common Plugs	\$	357C	Fundamental Investment Model
19	2 DSX-1 Terminations (Installed/Utilized)	Š	, 357C	Line 17+Line 18+Line 19
20	Total Installed Investment	•	, 00.0	•
21			0.970 357C	Economic Analysis
	Levelization Factor (Inflation)		357C	Line 20°Line 22
23		-		
24			1.00	Tariff Structure
25		\$, 357 C	(Line 23)/Line 25
26		34		
27	mt & Bauma Facility		0.1202 357C	Economic Analysis
28			; 357C	Line 26*Line 28
29 30	The state of the s		357C	Line 26+Line 29
31		9		
32			0.0030 200	Economic Analysis
33		\$		Line 30*Line 32
34	•			Economic Analysis
35			0.0404 10C	Line 30°Line 35
36	Building Investment	\$	ş	Tile 20 Cile 33
-				

UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE Development of Investment

State	Flonda
Work Paper	300
Page	2 of 2
Date	May 96

		A	8	<u>_</u>
Ln	Description	Result	FRC	Source .
1	Material Price			A. A. a. d.
2	POTS Plug-Ins	\$	357C	Network
4	Telephone Plant Index		1.00 357C	
5 6	POTS Plug-In Material Cost-Base Year	\$)357C	Line 2*Line 4
7	In-Plant-Factors			Essagnia Applyara
8	Deferrable Plug-Ins		1.17 357C	Economic Analysis
10	Installed Investment	_	-2676	Line 5*Line 8
11 12	POTS	S	£357C	
13	Levelization Factor (Inflation)		0.970 357C	
14 15	Inflated Investment	\$	1357C	
16	Utilization Factor		1.00 357C	
17 18	Utilized/Inflated Circuit	\$	357C	•
19	Spare Stock Factor		0.0925 3570	-
20 21	Deferrable POTS Plugs	\$	3570	
22			0.1202 3570	-
23	MCE&P Investment in CKT	\$	3570	
24 25	Total Investment in CKT	\$	3570	•
26	Land Factor		0.003 20C	Economic Analysis
27 28	•	\$	220C	Line 25°Line 24
	Building Factor		0.0404 10C	Economic Analysis
	Building Investment	\$	100	Line 29°Line 24

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PLORIDA UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE

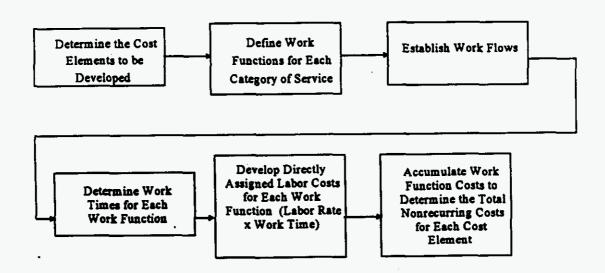
COST DEVELOPMENT - NONRECURRING

Nonrecurring costs are one-time costs incurred as a result of provisioning, installing, disconnecting and completion of orders initiated by a customer request for the Unbundled Loop Channelization System and Central Office Channel Interface. The Nonrecurring Cost Study is performed to determine the service order, provisioning and disconnect costs associated with the cost element listed above. Calculations for the nonrecurring costs are included in this section.

Figure 5-1 shows a generalized flow of the steps necessary for developing nonrecurring costs. Each part of this flow will be explained in more detail in this section.

Figure 5-1

Generalized Flow Diagram for Developing Nonrecurring Costs



The first step in developing nonrecurring costs is to determine the cost elements to be studied. Each cost element is then described by all of the individual work functions required to provision the element. An example of a work function is the designing of a circuit in the Circuit Provisioning Group.

The work functions required to provide the Unbundled Loop Channelization System and Central Office Channel Interface can be grouped into four categories. These are:

- 1) Service Order
- 2) Engineering
- 3) Connect and Test
- 4) Technician Travel Time

Work functions included in these categories range from clerical activities to installation activities.

The next step in developing nonrecurring costs requires that Company subject matter experts identify the work functions involved in the provisioning of the Unbundled Loop Channelization System and Central Office Channel Interface (an example of a work function is making a cross-connect in the central office). These work functions are then used to describe the flow of work within the various work centers involved in provisioning the element.

The next step in the development of nonrecurring costs is to determine work times for each work function associated with the nonrecurring costs for the Unbundled Loop Channelization System and Central Office Channel Interface. The work times of the various work groups are determined from Subject Matter Expert inputs. Each work time estimate is made by a subject matter expert who thoroughly understands how each activity is done.

A spreadsheet model is used to incorporate the specific work functions and labor rates. In order to arrive at the nonrecurring cost for the element studied, the work times for each work function required is multiplied by the appropriate labor rate. The labor inflation factors (LIF) are used to bring the labor rate to the study period. The levelized labor rate is expressed on a per minute basis on workpapers 750 and 850, as are the worktimes. The labor rates and the labor inflation factors are shown in Section 7. Next, the individual work function costs are accumulated into the total cost for the cost element studied.

To recognize cost reductions on orders with multiple systems and/or interfaces, costs are calculated separately for the first and additional system and/or interface. "First" refers to the first item on a service order. "Additional" costs are the incremental costs of providing one or more duplicates of the item on the same service order at the same time as the first.

The basic process by which nonrecurring costs are calculated consists of combining unit work times with hourly costs of each specific service category. These labor times, and service order related work times, are multiplied by the directly assigned labor rates for the work groups performing the activities.

Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as the installation costs. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

The following workpapers reflect the cost development.

SUMMARY OF NONRECURRING COSTS

STATE: WORKPAPER: FLORIDA 700 1 OF 1 Aug-96

PAGE: DATE:

E:

UNBUNDLED LOOP CHANNELIZATION SYSTEM

(1996-1998 Level incremental Costs)

1 DESCRIPTION	SOURCE	FIRST	ADDTL
2 3 Service Order	WP750 Col G LN7 THRU LN19		
4 5 Engineering	WP750 Col G LN22 and LN24		
6 7 Connect & Test	WP750 Col G LN27		<u> </u>
9 Technician Travel Time 10	NA	NA	NA
11 12 Total Nonrecurring Cost	Sum of L3, L5, L7, L9		<u> </u>
13 14		***	_
15 16			
17 18			

STATE: FLORIDA
WORKPAPER: 750
PAGE: 1 OF 1
DATE: Aug-96

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TEACE 1990 - 1990								
1	(A)	(B)	(C)	(D)	(E)	(F) DISCOUNTED	. (G)	
2 3 4 5 <u>Description</u>	INSTALL WORKTIMES (HRS) <u>FIRST ADDTL</u>	DISCONNE WORKTIMES (HI FIRST ADD		INSTALL COST (A*C) FIRST ADDTL	DISCONNECT COST (B*C) FIRST ADDIL	DISCONNECT COST (E*DDF) FIRST ADDTL	(D+F)*(1 TOTAL <u>FIRST</u>	+ GRT) TOTAL <u>ADOTL</u>
6 <u>SERVICE ORDER</u> 7 CUSTOMER POINT OF CONTACT-ICSC		K A	\$40.30		1	į.		!
9 ISC TEAM MEMBER 10	1	<u>69</u>	¹ \$42.06		į)		ł
11 ISC CLERICAL SUPPORT 12	ą	学籍 內部)	\$31.47 ¹		1	1		i
13 CIRCUIT PROVISIONING CENTER-CPC 14	4		\$36.65 835.03			1	!	*
15 NETWORK ADMINISTRATION 16 17 CO INSTALL & MTCE-CKT & FAC-NTEL	· -2 4		\$35.03 \$41.64			i	 	
18 19 NETWORK & ENGINEERING PLANNING	;	微	\$58.43	I		ł	;	
20 21 ENGINEERING	,ee		\$44.56				i	1
22 NETWORK PLUG -IN ADMINISTRATION-PICE 23 24 CIRCUIT PROVISIONING CENTER-CPC	u <u>;</u> uā!	r.	\$36.65				i	į
25 26 <u>Connect & Tebt</u>							i	
27 CO INSTALL & MITCE-CKT & FAC-NITEL 28		V. m. 1	\$41.84				1	·
29 30 TOTAL NONRECURRING COST							Ti.	1

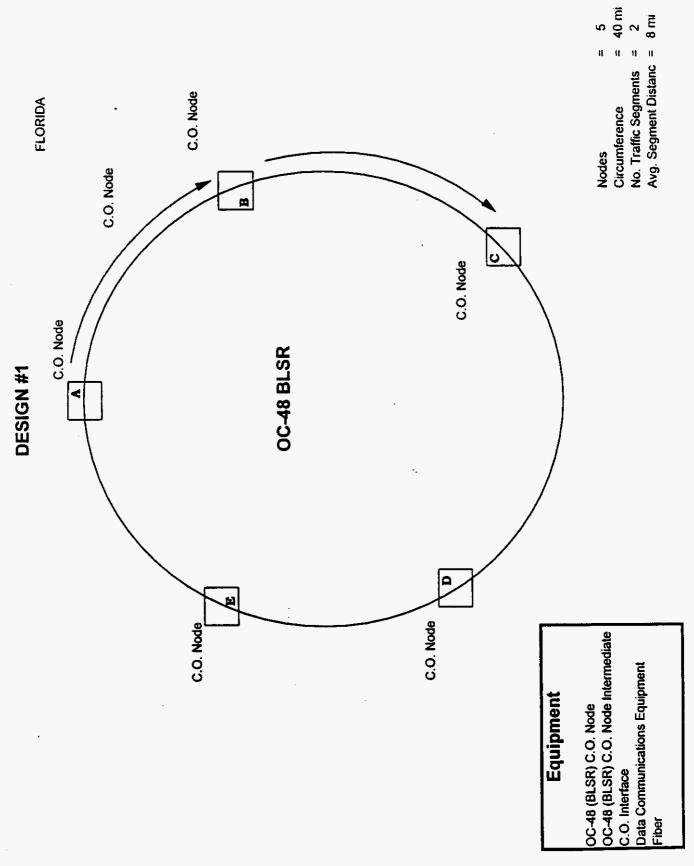
SUMMARY OF NONRECURRING COSTS

STATE: WORKPAPER: PAGE: DATE: FLORIDA 800 1 OF 1 Aug-96

UNBUNDLED LOOP CHANNELIZATION SYSTEM CENTRAL OFFICE CHANNEL INTERFACE - VOICE

(1996-1998 Level Incremental Costs)

		A	B
1 DESCRIPTION	SOURCE	<u>FIRST</u>	<u>ADDTL</u>
2 3 Service Order	WP850 Col G LN9		A Comment
4 5 Engineering 6	WP850 Col G LN13	.,	
7 Connect & Test 8	WP850 Col G LN17 and LN19		$E_{t} = e^{-i t}$
9 Technician Travel Time	NA NA	NA	NA _.
10 11			
12 Total Nonrecurring Cost	Sum of L3, L5, L7, L9		
13			
14			
15			
16 17	•		
18			
19			



FLORIDA UNBUNDLED LOOF CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE

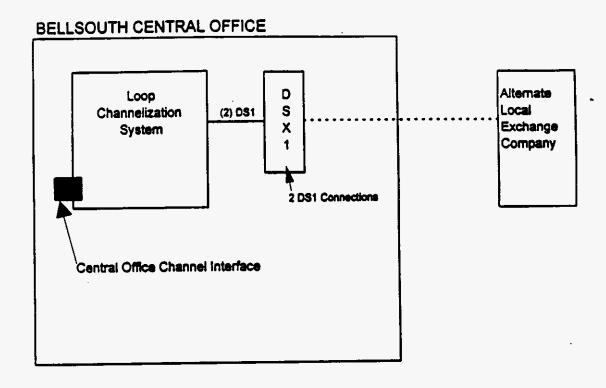
SPECIFIC STUDY ASSUMPTIONS

The cost study for the Unbundled Loop Channelization System and Central Office Channel Interface for the state of Florida is based on incremental economic theory and assumptions, plus specific Network deployment strategies, first choice provisioning quidelines, and equipment purchasing information.

Cost study assumptions are as follows.

- 1. The cost of money is 13.2%, the forward-looking incremental cost to the firm.
- The equipment that will be deployed is an AT&T TR303, 96 capacity.
- Only connection to Unbundled Exchange Access Loops, voice grade, will be allowed. Therefore, the deferrable plug-in is a voice grade Plain Old Telephone (POTS) plug-in.
- 4. Since the remote terminal is located in the central office, bulk power is not required.
- 5. The equipment will be predominantly concentrated at a 2:1 ratio. Two DSX-1 panel terminations are included.
- A diagram of the architecture is found on the following page.

UNBUNDLED LOOP CHANNELIZATION SYSTEM AND CENTRAL OFFICE CHANNEL INTERFACE



PSC Docket No. 960833-TP
Schibit No. DDC-11

FLORIDA



SPECIAL ACCESS VOICE GRADE SERVICE

INTEROFFICE CHANNEL VOICE-UNBUNDLED EXCHANGE ACCESS

COST STUDY
DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING
SECTION 5	COST DEVELOPMENT - NONRECURRING
SECTION 6	SPECIFIC STUDY ASSUMPTIONS
SECTION 7	FACTORS AND LOADINGS

SECTION A

SECTION A

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

PROPRIETARY RATIONALE

The Florida Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access Cost Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing this element on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Florida Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Access Cost Study is considered proprietery.

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FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

INTRODUCTION AND OVERVIEW

This Long Run Incremental Cost study is being provided to support the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access in the state of Florida.

The Long Run Incremental Costs presented in this study are volume sensitive costs. The Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access has no volume insensitive costs.

The Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access is an arrangement offered to Alternative Local Exchange Companies (ALECs) for the purpose of providing a dedicated voice grade transmission path between two or more switching offices and/or serving wire centers of BellSouth. This is for connecting an Unbundled Exchange Access loop to another central office that is not the central office of the end user. The facility includes transmission equipment in both end offices, as well as the circuit equipment in the intermediate central offices. The per mile cost consists of aerial, buried and underground fiber cable as well as the associated pole and conduit support investments.

Recurring costs presented in this study are directly assigned, incremental and levelized so as to be appropriate for the 1996-1998 study period. Nonrecurring costs follow the same convention and represent 1996-1998 level costs also. These Long Run Incremental Costs are developed by using 1995 level incremental loadings, annual cost factors, and directly assigned labor rates.

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FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting the Florida Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels The production unit may be an entire service or a were reduced. unit of the service depending on the cost object involved. Costs for a service may include volume sensitive and/or volume insensitive costs. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or from a change in demand for an existing service.

DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses for maintenance, ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental recurring cost study for the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access is to determine the forward-looking network architecture. Material prices for the equipment are defined. Next, account specific Telephone Plant Indices are applied, when necessary, to trend investments to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation

labor. The deployment probabilities, capacity, spare stock and utilization of the equipment are also considered.

Plant account specific Investment Inflation Factors are applied to the installed investments to trend the base year, or study year, investments to levelized amounts that are valid for a three to five year planning period. Appropriate loadings for land, building, and miscellaneous common equipment and power are then applied to the electronic equipment. Support structure loadings are applied for poles and conduit to the aerial and underground fiber investments, respectively.

Next, 1995 level Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. Account specific factors for each Uniform System of Accounts - Field Reporting Code (USOA-FRC) are applied to levelized investments by account code, yielding an annual cost per account code. Annual costs by account codes are then summed. These costs are then divided by twelve to arrive at a monthly cost per cost element.

DEVELOPMENT OF NONRECURRING COSTS

Nonrecurring costs are "one-time" costs incurred as a result of provisioning, installing, and disconnecting the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access. The first step in developing nonrecurring costs is to determine the cost elements related to the study. These cost elements are then described by all of the individual work functions required to provision the cost element. The work functions can be grouped into four categories. These are service order, engineering, connect and test, and technician travel time. The work function times, identified by subject matter experts, are used to describe the flow of work within the various work centers involved. Installation and provisioning costs are developed by multiplying the work time for each work function by the directly assigned 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. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

SUMMARY OF RESULTS

This section contains a cost summary for both recurring and nonrecurring cost elements studied for the 1996-1998 Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access.

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

SUMMARY OF RESULTS

A B

Monthly Cost

Fixed Per Mile

Interoffice Channel Voice
Unbundled Exchange Access
1 thru 8 miles
9 thru 25 miles
Over 25 miles

Nonrecurring Cost

First Additional

Interoffice Channel Voice
Unbundled Exchange Access
1 thru 8 miles

15 1 thru 8 miles
14 9 thru 25 miles
17 Over 25 miles

Private/Proprietary:
No disclosure outside BellSouth except by written agreement

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

COST DEVELOPMENT - RECURRING

This section defines the cost development of the recurring costs for the Florida Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access.

Generally, economic cost development is outlined in Section 2. Network architecture is determined, the necessary equipment is identified, material prices are obtained, factors, utilization and loadings are applied and the result is levelized for the study period. Annual cost factors are applied to convert the investment to cost.

Recurring costs are developed for the fixed and per mile component of the interoffice transmission facility provided on SONET ring architecture which is the forward looking technology. Designs for the SONET rings were obtained from the Florida Network Department.

The fixed component includes the SONET multiplexer, the DS1 channelization card, a fiber splicing terminal, DSX-1 panel, a D4 Channel Bank and a voice grade activation plug-in at each end of the facility. Also included in the fixed component is the circuit equipment in the intermediate central office. The intermediate central office equipment includes the SONET multiplexer and a fiber splicing terminal. The per mile cost consists of aerial, buried and underground fiber cable as well as the associated pole and conduit support investments.

The SONET Fundamental Investment Model was used to develop the investments for the SONET lightwave multiplexing equipment, the DS1 channelization card, the fiber splicing terminal, the DSX-1 panel and per mile per strand investments for aerial, buried and underground fiber cable.

The Fundamental DS1 Channelization Model was used to develop the investments for the channel banks and associated plug-ins.

The following workpapers develop the investment, convert the investment to monthly costs, and summarize the results.

INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

Electronics and Transport Investment Data Collected SONET Fundamental Investment Model Fundamental DS1 Channelization Model Investments Developed by Design WP 300 thru WP 301 Conversion of Investments by Design to Investment by Cost Element WP 200, WP201, WP202 Conversion of Investments to Recurring Cost by Cost Element Ace Reports 10 and 20 **Recurring Costs** Summarized by Cost Element WP 100

Interoffice Voice Gra				Workpaper: Page: Date:	100 1 of 1 5-Jul-96
1	Monthly Recur	ring Costs			
2 3 4	Fixed		A	Source	
5 · 6 7 8	1 thru 8 miles 9 thru 25 miles Over 25 miles			Ace Report 20 Pag Ace Report 20 Pag Ace Report 20 Pag	e 3
9 10 11	Per Mile				
12 13 14	1 thru 8 miles 9 thru 25 miles Over 25 miles			Ace Report 20 Pag Ace Report 20 Pag Ace Report 20 Pag	e 4
15 16 17					
18 19					
20 21					
22 23					
24					
25 26					
27 28				•	
2 9 30					
31 32			•		
33 34					
35 36					
37 38					
39					
40 41					
42 43					
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46 47			•		
48 49					

Interoffice Channel Voice - Unbundled Exchange Access

State:

FLORIDA

JOST DETAILS ACE. **JRT 20** 1 USOC ANNU. 2 CSNUMBER: 1 of 3 CSNAME: 7/26/96 4 TARIFF ELEMENT: : USOC Technology Volume Sensitivity **Economic Type Investment Basis Tariff Ref** Modifier 6 State VG SONET VS DIR FL 1 VG **ANNUAL COST FACTORS** ANNUAL EXPENSES INVESTMENT DATA 9 NOTE 2. NOTE 3. NOTE 4. NOTE 1. 10 CL Mice Other Adval GRT Depr. C.O.M. Inc Tax 11 Field Capital Operating Dep. Levelized Inc Tax Mtce Other AdVal GRT C.O.M. Factor Factor Expense Expense Expense Expense Expense Expense investment investment Factor Factor Factor 12 Code State P κ 0 Q Ε G N 13 В C D F Н Α (D°H) (D^*I) (D*J) (C°F) (C*G) 14 (C*E) 0.0000 .0302 .0986 .0452 .0069 .0113 .0152 10C FL 0.0000 .0514 0.0000 .0113 .0152 20C 0.0000 FL .1118 .0297 .0086 .0052 .0113 .0152 357C .1134 .0638 FL 15 TOTALS 16 17 18 TOTAL ANNUAL COST..... TOTAL MONTHLY COST..... 19

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20

NOTES:

1. Capital and Operating Investments are the INVESTMENTS from ACE Report 10
2. Depreciation, Cost of Money and Income Tax Expense = Capital Investment multiplied by the corresponding Annual Cost Factor
3. Maintenance, Other and Ad Valorem Expenses = Operating Investment multipled by the corresponding Annual Cost Factor
4. Gross Receipts Tax = Gross Receipts Tax Factor multipled by the sum of the Capital Costs and Operating Expenses

1 USOC ANNU. 2 CSNUMBER: 2 of 3 CSNAME: 7/26/96 4 TARIFF ELEMENT: : **Volume Sensitivity Economic Type** USOC Modifier Technology Investment Basis Tariff Ref 6 State VG SONET **VS** DIR 2 FL VG ANNUAL COST FACTORS ANNUAL EXPENSES INVESTMENT DATA 9 NOTE 2. NOTE 3. NOTE 4. NOTE 1. 10 T AdVal GRT **Depr.** C.O.M. Inc Tax Mice Other GRT 11 Field Capital Operating Dep. Levelized Inc Tax Mtce Other Adval Investment Investment Factor C.O.M. Factor Factor Factor **Factor** Expense Expense Expense Expense Expense Expense Code State 12 Κ 8 D E G H Ν 0 Ρ Q 13 Α (C'E) (C*F) (C*G) (D*H) (D°I) (D,1) 14 .0279 0.0000 .0113 .0152 .0671 .0325 1C .0725 FL 0.0000 .0113 .0152 .0242 .0401 .0028 4C FL .0877 0.0000 .0139 .0113 .0152 822C .0667 .0784 .0347 FL 0.0000 .0585 .0367 .0144 .0113 .0152 845C FL. .0816 0.0000 85C FL .0626 .0800 .0358 .0135 .0113 0152 15 TOTALS 16 17 18 TOTAL ANNUAL COST..... TOTAL MONTHLY COST..... 19 20

ACE.

JRT 20

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NOTES:

OST DETAILS

3. Maintenance, Other and Ad Valorem Expenses = Operating Investment multipled by the corresponding Annual Cost Factor 4. Gross Receipts Tax = Gross Receipts Tax Factor multipled by the sum of the Capital Costs and Operating Expenses

^{1.} Capital and Operating Investments are the INVESTMENTS from ACE Report 10
2. Depreciation, Cost of Money and Income Tax Expense = Capital Investment multiplied by the corresponding Annual Cost Factor

ACE i **₹T 20 JST DETAILS** 1 USOC ANNUA 2 CSNUMBER: 3 of 3 CSNAME: 7/26/96 4 TARIFF ELEMENT: : Technology Volume Sensitivity **Economic Type Investment Basis** USOC Modifier **Tariff Ref** 6 State DIR SONET VS VG VG 3 FL **ANNUAL EXPENSES ANNUAL COST FACTORS INVESTMENT DATA** 9 NOTE 2. NOTE 3. NOTE 4. NOTE 1. 10 D B Other GRT **GRT** C.O.M. Mtce Mtce Other AdVal Depr. Inc Tax Adval Operating Dep. Inc Tax Capital Levelized Field 11 Factor Factor Expense Expense Expense Expense **Expense Expense** Factor E C.O.M. **Factor** Factor Investment Investment 12 Code State H 0 Q 13 Α (C'E) (C*F) (C*G) (D*H) (D-I) (D^*J) 14 0.0000 .0113 .0452 .0069 .0152 .0302 .0986 10C FL 0.0000 0.0000 .0113 .0152 0.0000 .0514 20C .1118 FL .0052 .0113 .0152 .1134 .0638 .0297 .0086 357C FL 15 TOTALS 16

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17 18

19 20

NOTES:

TOTAL ANNUAL COST.....

Capital and Operating Investments are the INVESTMENTS from ACE Report 10
 Depreciation, Cost of Money and Income Tax Expense = Capital Investment multiplied by the corresponding Annual Cost Factor
 Maintenance, Other and Ad Valorem Expenses = Operating Investment multipled by the corresponding Annual Cost Factor
 Gross Receipts Tax = Gross Receipts Tax Factor multipled by the sum of the Capital Costs and Operating Expenses

TOTAL MONTHLY COST.....

JST DETAILS 1 USOC ANNUA ACE I JRT 20 2 CSNUMBER: 4 3 CSNAME: 7/26/96 4 TARIFF ELEMENT: : Tariff Ref USOC . Modifier Technology Volume Sensitivity **Economic Type** 6 State Investment Basis VG SONET VS DIR FL VG INVESTMENT DATA **ANNUAL COST FACTORS** 9 **ANNUAL EXPENSES** NOTE 1. NOTE 2. 10 NOTE 3. NOTE 4. 工 Operating Mtce Depr. Inc Tax Capital Levelized Inc Tax Other AdVal **GRT** C.O.M. Mice Other Field Dep. Adval GRT 12 Code State Investment Investment C.O.M. Factor Factor Factor Factor Expense Expense Expense Expense Factor Expense Expense 13 Α В E G н Κ N 0 Q 14 (C°E) (C*F) (C*G) (D*H) (D*I) 1C .0671 .0725 .0325 .0279 0.0000 .0113 .0152 FL 4C 0.0000 FL .0242 .0877 .0401 .0028 .0113 .0152 0.0000 822C FL .0667 .0784 .0347 .0139 .0113 .0152 0.0000 845C FL .0585 .0816 .0367 .0144 .0113 .0152 0.0000 85C .0626 .0358 .0135 .0113 .0152 FL .0800 15 TOTALS 16 17 18 TOTAL ANNUAL COST..... TOTAL MONTHLY COST..... 19 20

F23B01X 000297

NOTES:

1. Capital and Operating Investments are the INVESTMENTS from ACE Report 10
2. Depreciation, Cost of Money and Income Tax Expense = Capital Investment multiplied by the corresponding Annual Cost Factor

3. Maintenance, Other and Ad Valorem Expenses = Operating Investment multipled by the corresponding Annual Cost Factor 4. Gross Receipts Tax = Gross Receipts Tax Factor multipled by the sum of the Capital Costs and Operating Expenses

JRT 20 ACE . JOST DETAILS 1 USOC ANNU. 2 CSNUMBER: 5 of 3 CSNAME: 7/26/96 4 TARIFF ELEMENT: : Volume Sensitivity **Economic Type** Investment Basis Technology USOC Modifier Tariff Ref 6 State DIR SONET VS VG VG 5 FL ANNUAL EXPENSES ANNUAL COST FACTORS INVESTMENT DATA 9 NOTE 4. NOTE 3. NOTE 2. NOTE 1. 10 エ D E **GRT** Other Adval C.O.M. Inc Tax Mtce **GRT** Mtce Other AdVal Depr. Field Capital Operating Dep. Levelized Inc Tax Expense Expense Expense Expense Expense Expense C.O.M. Factor Factor Factor State Investment Investment Factor Factor Code 12 M N 0 ١E F G K D В 13 Α (D*H) (D*I) (D*J) (C°E) (C*F) (C*G) 14 .0452 .0069 0.0000 .0113 .0152 .0302 10C FL .0986 0.0000 .0113 .0152 0.0000 .0514 0.0000 .1118 20C FL .0052 .0152 .1134 .0297 .0086 .0113 .0638 357C FL 15 TOTALS 16 17 18 TOTAL MONTHLY COST..... TOTAL ANNUAL COST..... 19 20

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NOTES:

Capital and Operating Investments are the INVESTMENTS from ACE Report 10
 Depreciation, Cost of Money and Income Tax Expense = Capital Investment multiplied by the corresponding Annual Cost Factor
 Maintenance, Other and Ad Valorem Expenses = Operating Investment multipled by the corresponding Annual Cost Factor
 Gross Receipts Tax = Gross Receipts Tax Factor multipled by the sum of the Capital Costs and Operating Expenses

ACE . Jh. Lu OST DETAILS JSOC ANNU. **CSNUMBER:** 6 of 6 CSNAME: 7/26/96 TARIFF ELEMENT: : Technology Volume Sensitivity **Economic Type** Investment Basis Tariff Ref USOC Modifier State DIR VG SONET 6 VS VG FL **ANNUAL EXPENSES** ANNUAL COST FACTORS INVESTMENT DATA NOTE 4. NOTE 3. NOTE 2. NOTE 1. I GRT Other Adval Inc Tax Mtce Mtce Other AdVal GRT **Depr.** C.O.M. Capital Operating Dep. Levelized Inc Tax Field Expense Expense Expense Expense Expense Expense C.O.M. Factor Factor **Factor** Factor State Investment investment Factor Code R Q E G Κ Α В O H (D*I) (D,1) (C*G) (D°H) (C*E) (C*F) 0.0000 .0113 .0152 .0325 .0279 10 .0671 .0725 FL 0.0000 .0028 .0113 .0152 4C FL .0242 .0877 .0401 0.0000 .0113 .0152 822C 0667 .0784 .0347 .0139 F٤ .0585 .0367 .0144 0.0000 .0113 .0152 845C F٤ .0816 .0626 .0358 .0135 0.0000 .0113 .0152 85C FL .0800 15 TOTALS 16 17

F23B01X 000299 NOTES:

TOTAL ANNUAL COST.....

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Capital and Operating Investments are the INVESTMENTS from ACE Report 10
 Depreciation, Cost of Money and Income Tax Expense = Capital Investment multiplied by the corresponding Annual Cost Factor
 Maintenance, Other and Ad Valorem Expenses = Operating Investment multipled by the corresponding Annual Cost Factor
 Gross Receipts Tax = Gross Receipts Tax Factor multipled by the sum of the Capital Costs and Operating Expenses

TOTAL MONTHLY COST.....

USOC INVEST....NT DETAILS **ACE REPORT 10 CSNUMBER:** 1 of 6 CSNAME: 7/26/96 TARIFF ELEMENT: Technology Economic Type **Investment Basis** Tariff Ref USOC Modifier Vol. Sen. VG FL SONET VS DIR ۷G PRIMARY INVESTMENT DATA INVESTMENT LOADING FACTORS SUPPORT STRUCTURE LOADINGS INVESTMENT Field Operating Capital Operating Investment InPlant InPlant CP&E Capital Loading Loading Field Code Investment Investment Description Investment Date Factor Factor Type Factor Type Factor Code 10 357C Circuit Equipment 7/3/96 1.0000 1.1202 357C ~ Support Loading----> 0.0404 10C circuit_bldg 357C ~ Support Loading----> 20C 0.0030 circuit land Initial Total Investment **Adjusted Total Investment**

NOTES: 1. The Investment for Primary Investments is calculated by multiplying the primary investment by the applicable investment loading factors.

2. The Investment for Support Structure Loadings is calculated by multiplying the applicable loading factor by the sum of investments for each primary Field Code.

3. InPlant Factor types: T = Telco, C = Material Composite, H = Material Hardwire, P = Material Plugin

4. The FC factor is the levelized inflation factor for investments.

Capital Investment and Operating Investment source is Workpaper 200 series.
 PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT BY WRITTEN AGREEMENT.

USOC INVEST.... NT DETAILS

CSNUMBER:

CSNAME:

TARIFF ELEMENT:

ACE REPORT 10

2 of 6 7/26/96

Vol. Sen. USOC Technology Economic Type Investment Basis State Tariff Ref Modifier

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		PRIMARY	INVESTMENT (DATA		INVES	STMENT	LOADING	FACTORS	SUPPOR	T STRUCTURE	ELOADINGS	INVEST	MENT
	Field Code	Description	A Capital Investment	B Operating Investment	Date	FC Factor	InPlant Factor	InPlant Type	CP&E Factor	Loading Factor	Loading Type	Field Code	C Capital Investment	D Operating Investment
1	822C	Aerial Cable - Fiber			7/3/96	1.0000				0.2522	nala 6h	1C	<u></u> .	The second of th
•	822C 845C	~ Support Loading> Buried Cable-Fiber			7/3/96	1.0000				0.2522	pole_fib	10		
4	85C	Underground Cable- Fiber			7/3/96	1.0000								
5	85C	~ Support Loading>	•							0.3895	cond_fib	4C		

Initial Total Investment

Adjusted Total Investment

NOTES: 1. The Investment for Primary Investments is calculated by multiplying the primary investment by the applicable investment loading factors.

2. The Investment for Support Structure Loadings is calculated by multiplying the applicable loading factor by the sum of investments for each primary Field Code.

3. InPlant Factor types: T = Telco, C = Material Composite, H = Material Hardwire, P = Material Plugin

4. The FC factor is the levelized inflation factor for investments.

5. Capital Investment and Operating Investment source is Workpaper 200 series.

PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT BY WRITTEN AGREEMENT.

USOC INVESTILLAT DETAILS

CSNUMBER:

CSNAME:

TARIFF ELEMENT:

ACE REPORT 10

3 of 6 7/26/96

State Tariff Ref

USOC

Modifier

Technology

Vol. Sen.

Economic Type

Investment Basis

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3

VG

SONET

VS

DIR

VG

PRIMARY INVESTMENT DATA

INVESTMENT LOADING FACTORS

SUPPORT STRUCTURE LOADINGS

INVESTMENT

	Field Code	Description	A Capital Investment	B Operating Investment	Date	FC Factor	InPlant Factor	InPlant Type	CP&E Factor	Loading Factor	Loading Type	Field Code	C Capital Investment	D Operating Investment	
,	357C	Circuit Equipment			7/3/96	1.0000			1.1202				ķ	ا منحتوانا	100 m
2	357C	~ Support Loading	•							0.0404	circuit_bldg	10C			THE STATE OF THE S
3	357C	~ Support Loading	•							0.0030	circuit_land	20C			<u>.</u>
		**************************************						·							

Initial Total Investment

Adjusted Total Investment

NOTES: 1. The Investment for Primary Investments is calculated by multiplying the primary investment by the applicable investment loading factors.

2. The Investment for Support Structure Loadings is calculated by multiplying the applicable loading factor by the sum of investments for each primary Field Code.

3. InPlant Factor types: T = Telco, C = Material Composite, H = Material Hardwire, P = Material Plugin

4. The FC factor is the levelized inflation factor for investments.

5. Capital Investment and Operating Investment source is Workpaper 200 series.
PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT BY WRITTEN AGREEMENT.

USOC INVESTI....NT DETAILS

CSNUMBER:

CSNAME:

TARIFF ELEMENT:

Fiber

~ Support Loading---->

85C

ACE REPORT 10

4 of 6 7/26/96

Technology **Economic Type Investment Basis** Tariff Ref USOC Modifier Vol. Sen. State

FL VG SONET VS DIR

PRIMARY INVESTMENT DATA

INVESTMENT A B Operating Field Capital inPlant inPlant CP&E Capital Operating FC Loading Loading Field Code Description Investment Date Factor Investment Investment Investment Factor Factor Type Factor Type Code 822C 7/3/96 Aerial Cable - Fiber 1.0000 822C ~ Support Loading----> 0.2522 1C pole_fib 845C **Buried Cable - Fiber** 7/3/96 1.0000 85C Underground Cable -7/3/96 1.0000

INVESTMENT LOADING FACTORS

VG

SUPPORT STRUCTURE LOADINGS

0.3895

cond_fib

4C

Initial Total Investment Adjusted Total Investment

NOTES: 1. The Investment for Primary Investments is calculated by multiplying the primary investment by the applicable investment loading factors.

2. The Investment for Support Structure Loadings is calculated by multiplying the applicable loading factor by the sum of investments for each primary Field Code.

3. InPlant Factor types: T = Telco, C = Material Composite, H = Material Hardwire, P = Material Plugin

4. The FC factor is the levelized inflation factor for investments.

Capital Investment and Operating Investment source is Workpaper 200 series. PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT BY WRITTEN AGREEMENT.

USOC INVEST ... NT DETAILS

CSNUMBER:

CSNAME:

TARIFF ELEMENT:

ACE REPORT 10

5 of 6 7/26/96

Technology **Economic Type Investment Basis** Vol. Sen. USOC Modifier State Tariff Ref

FL

5

VG

SONET

VS

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VG

PRIMARY INVESTMENT DATA

INVESTMENT LOADING FACTORS

SUPPORT STRUCTURE LOADINGS

INVESTMENT

	Field Code	Description	Capital Investment	Operating Investment	Date	FC Factor	InPlant Factor	InPlant Type	CP&E Factor	Loading Factor	Loading Type	Field Code	Capital Investment	D Operating Investment
ı	357C	Circuit Equipment		;	7/3/96	1.0000	********		1.1202					ا معفود د
2	357C	~ Support Loading	>							0.0404	circuit_bldg	10C		
3	357C	~ Support Loading	>							0.0030	circuit_land	20C		
4	Initial	Total Investment		, , , , , , , , , , , , , , , , , , ,						Adjust	ed Total Investm			-No 5 "ACT proteine and

NOTES: 1. The Investment for Primary Investments is calculated by multiplying the primary investment by the applicable investment loading factors.

2. The Investment for Support Structure Loadings is calculated by multiplying the applicable loading factor by the sum of investments for each primary Field Code.

3. InPlant Factor types: T = Telco, C = Material Composite, H = Material Hardwire, P = Material Plugin

4. The FC factor is the levelized inflation factor for investments.

5. Capital Investment and Operating Investment source is Workpaper 200 series.

PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT BY WRITTEN AGREEMENT.

USOC INVEST NT DETAILS

CSNUMBER:

CSNAME:

TARIFF ELEMENT:

ACE REPORT 10

6 of 6 7/26/96

Tariff Ref

USOC

Modifier

Technology

VS

Vol. Sen.

Economic Type

INVESTMENT LOADING FACTORS

Investment Basis

FL

VG

PRIMARY INVESTMENT DATA

SONET

DIR

VG

SUPPORT STRUCTURE LOADINGS

INVESTMENT

	Field Code	Description	Pr Capital Investment	Operating Investment	Date	FC Factor	 inPlant Type	CP&E Factor	Loading Factor	Loading Type	Field Code	Capital Investment	Operating Investment
1	822C	Aerial Cable - Fiber			, 7/3/96	1.0000							<u> </u>
2	822C	~ Support Loading	•						0.2522	pole_fib	1C		
3	845C	Buried Cable - Fiber			7/3/96	1.0000							
4	85C	Underground Cable Fiber			7/3/96	1.0000							
3	85C	~ Support Loading	•						0.3895	cond_fib	4C	स् वृद्धका राज्याकार	

Initial Total Investment

Adjusted Total Investment

NOTES: 1. The Investment for Primary Investments is calculated by multiplying the primary investment by the applicable investment loading factors.

2. The Investment for Support Structure Loadings is calculated by multiplying the applicable loading factor by the sum of investments for each primary Field Code.

3. InPlant Factor types: T = Telco, C = Material Composite, H = Material Hardwire, P = Material Plugin

4. The FC factor is the levelized inflation factor for investments.

5. Capital Investment and Operating Investment source is Workpaper 200 series.

PRIVATE/PROPRIETARY: NO DISCLOSURE OUTSIDE BELLSOUTH EXCEPT 8Y WRITTEN AGREEMENT.

1 of 1 Page: Voice Grade Date: 5-Jul-96 Source Investment Per DS1 1 Fixed 3 WP300, Ln37 Design 1 WP301, Ln45 Design 2 5 6 8 Band 0 - 8 Miles Investment Per Voice Grade Ln 4 / 24 VG per DS1 Design 1 9 Network Area Staff 0.18 Probability of Occurrence 10 Ln9 * Ln10 Total Investment 11 12 Ln 5 / 24 VG per DS1 13 Design 2 Network Area Staff 0.82 Probability of Occurrence 14 Ln13 * Ln14 Total Investment 15 16 17 18 19 20 Ln11 + Ln15 Band 0 - 8 Miles Investment 21 VG Utilization **DS0** Utilization 0.85 22 Ln21 / Ln22 23 Utilized Investment Fundamental DS1 Channelization Model D4 Chan, Bnk & Cm. Plgs +DSX-1 Termination +FX Plug 24 Ln 23 + Ln24 25 Total Investment 26 27 Per Mile Investment Per DS1 Source 822C 845C 28 WP300, Ln38, Ln39, Ln40 Design 1 29 WP301, Ln46, Ln47, Ln48 30 Design 2 31 32 33 Band 0 - 8 Miles Investment Per Voice Grade \$ Ln 29/24 VG per DS1 Design 1 0.18 0.18 Network Area Staff 35 Probability of Occurrence Ln34 * Ln35 Total Investment - Route Distance 36 37 Ln 30/24 VG per DS1 38 Design 2 Probability of Occurrence 0.82 Network Area Staff 0.82 39 Ln38 * Ln39 Total Investment - Route Distance 40 41 42 43 44 45 46 Band Total Investment - Route Miles Ln36 + Ln40 1995 Annual Filing 23.58 23,58 47 Average Distance - Air Miles 23.58 Ln46 / Ln47 48 Investment Per Air Mile 0.85 VG Utilization 49 **DS0 Utilization** 0.85 0.85 \$ 4 Ln48 / Ln49 50 Utilized Investment

Interoffice Channel Voice - Unbundled Exchange Access

Interoffice

FLORIDA

200

State: Workpaper:

State: **FLORIDA** Interoffice Channel Voice - Unbundled Exchange Access 201 Workpaper: Interoffice Page: 1 of 2 Voice Grade Date: 5-Jul-96 Source investment Per DS1 1 Fixed WP300, Ln37 2 Design 1 WP301, Ln45 3 Design 2 4 5 6 8 9 Band 9 - 25 Miles Per Voice Grade Ln 4 / 24 VG Per DS1 Design 2 Network Area Staff 10 Probability of Occurrence Ln10 * Ln11 11 Total Investment 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 Ln12 Band 9-25 Miles Investment VG Utilization 30 0.85 **DS0** Utilization 31 Ln 30 / Ln31 Fundamental DS1 Channelization Model Utilized Investment 32 D4 Chan, Bnk & Cm. Plgs +DSX-1 Termination +FX Plug 33 Ln32 + Ln33 Total Investment 34 35 36 37 38 39 40 41 42 43 44 45 46 47

1	Interoffice Channel Voice - Unbundled Exchange Access Interoffice Voice Grade Per Mile Investment Per DS1	A 8220	ì	B	State: Workpaper: Page: Date: 650	FLORIDA 201 2 of 2 5-Jul-96
3 4 5 6 7 8	Design 1 Design 2 Band 9 - 25 Miles Per Voice Grade				*	WP300, Ln38, Ln39, Ln40 WP301, Ln46, Ln47, Ln48
11 12 13 14 15 18 17 18 19 20 21 22 23 24 25 26	Design 2 Probability of Occurrence Total Investment	s 1 \$	 1. 00	1.00		Ln 5/24 VG Per DS1 Network Area Staff Ln15 * Ln16
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Band Total - Route Miles Average Distance - Air Miles Investment Per Air Mile Utilization Utilized Investment	\$	23.58 0.85	23.	4	Ln17 1995 Annual Filing Ln31 / Ln32 VG Utilization Ln33/ Ln34

	interoffice Interoffice	Channel Voice - Unbundled Exchange Access			State: Workpaper:	FLORIDA 202
\	Voice Gra	de ' '			Page:	1 of 1
			4 -		Date:	5-Jul-9 6
1 <u>!</u> 2	Fixed	Investment Per DS1	357C			Source
3		Design 1				WP300, Ln37
4		Design 2				WP301, Ln45
5		·				
6		•				
7 (Band >25	Miles Investment Per Voice Grade				
8		Design 2				Ln 4 / 24 VG Per DS1
9		Probability of Occurrence	1			Network Area Staff
10		Total Investment	75/5 7 6 7 7			Ln8 * Ln9
11						
12						
13						
14						
15 16.						
17						
18						
19						
20		Band > 25 Miles Investment				Ln10
21		Utilization	0.85			VG Utilization
22		Utilized Investment	\$			Ln20 / Ln 21
23		D4 Chan, Bnk & Cm. Plgs +DSX-1 Termination +FX Plug	\$:			Fundamental DS1 Channelization Model
24		Total Investment	\$,			Ln22 + Ln23
25				_		
26				B.	4	
27	D	t				
25 ; 29	Per Mile	investment Per DS1	822C	845C	85C	
30		Design 2	\$	0400	930	WP301, Ln46, Ln47, Ln48
31		Design 2	•		,	111 001, 21175, 21171, 21170
32						
33						
34						
35		Design 2				Ln30/24 VG Per DS1
36		Probability of Occurrence	1.00	1.00	1.00	Network Area Staff
37		Total Investment	\$ 12		*	Ln35 * Ln36
38						
39						
40						
41						
42						
43 44						
45						
48						
47		Band Total -Route Miles				Ln37
48		Average Distance - Air Miles	23.58	23 58	23.58	1995 Annual Filing
49		Investment Per Air Mile				Ln47 / Ln48
50		DS0 Utilization	0.85	0.85	0.85	VG Utilization
51		Utilized Investment	:		,	Ln49 / Ln50

Interoffice Channel Voice - Unbundled Exchange Access

Interoffice Voice Grade State: FLORIDA Workpaper: 300

Page: Date:

5-Jul-96

1 of 1

Design 1

49

	A	В	_ <u>c</u>	
			Equipment	Causas
Line	<u>Description</u>	FRG	investment	Source
1		357C	5	SONET Fundamental Investment Model
	0.0.11040 - 00 30 500.1	3570	2	Network
3	Number Required		\$	Line 2 * Line 3
4	Total investment		•	Ling 2 Line 3
5	and the second s	357C	S	SONET Fundamental Investment Model
	0,0,1,000	3310	1	Network
7.	Number Required Total Investment		s .	Line 6 * Line 7
8	i otal investment		3	Cine o Cirie i
9	C.O. Interface DS1 on OC-48-Mux & Protect	2570	\$	SONET Fundamental Investment Model
		3370	2	Network
11	Number Required		s .	Line 10 * Line 11
12	Total Investment		3	CINE 10 CINE 11
13	C.O. Interfere DS4 on OC 48 Morting	357C	s	SONET Fundamental Investment Model
•	C.O. Interface DS1 on OC-48-Working Number Required	3370	2	Network
15	Total Investment		s	Line 14 * Line 15
16	i oral investment		J	Luis 14 Luis 13
17	Data Communications OC 48	357C	•	SONET Fundamental Investment Model
	Data Communications - OC-48	3370	1	Network
19	Number Required Total Investment		s	Line 18 * Line 19
20	t Oral titaesquent		•	Little 10 Little 10
21	Fiber - OC-48 BLSR Per Mile Per Strand	822C	S	SONET Fundamental Investment Model
	•		3	Network
23			16	Network
24			s	Line 22 * (Line 23 * Line 24)
25 26			•	
	Fiber - OC-48 BLSR Per Mile Per Strand	845C	S	SONET Fundamental Investment Model
28			3	Network
29			16	Network
30			s	Line 27 * (Line 28 * Line 29)
31			•	Citio El (Ellio Ed)
	Fiber - OC-48 BLSR Per Mile Per Strand	85C	\$	SONET Fundamental Investment Model
33			3	Network
34		-	16	Network
35	***************************************		\$	Line 32 * (Line 33 * Line 34)
36		•	•	
	Total Investment - Design 1	357C	\$ -	Ln4 + Ln8 + Ln12 + Ln16 + Ln20
38	_	822C		Line 25
39		845C		Line 30
40		85C		Line 35
41			•	-
42				
43				
44				
45				
46				
47				
48				

Interoffice Channel Voice - Unbundled Exchange Access interoffice Voice Grade

FLORIDA State: Workpaper: 301 Page: 1 of 1 Date: 5-Jul-96

Line Description FRC Investment Soutce 1		Design 2 - OC-48 Ring	В	C	
Line		A	ь	-	
2 C.O. Node - OC-48 BLSR Number Required Total Investment S	Line	<u>Description</u>	FRC	• •	Source
Number Required Total Investment S				_	CONST Sundamental Investment Madel
Total Investment S		0.0.11000 - 00 10 0001	35/C		
S	_	•			
6 C.O. Node - OC-48 (BLSR) Intermediate 357C Number Required 7 Total Investment 5 Total Investment 5 Total Investment 5 Number Required 12 Total Investment 5 Number Required 15 Number Required 16 Total Investment 5 Number Required 16 Total Investment 5 Number Required 17 Total Investment 17 Number Required 18 Data Communications - OC-48 Number Required 19 Total Investment 5 Number Required 19 Total Investment 5 Number Required 19 Number Required 19 Total Investment 5 Number Required 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Strands 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Miles 19 Number Strands 19 Number Miles 19 Numb		Total III Countries		•	
Number Required 10 C.O. Interface DS1 on OC-48-Mux & Protect 357C 5 11 Number Required 12 Total Investment 13 14 C.O. Interface DS1 on OC-48-Working 357C 15 Number Required 16 Total Investment 17 Number Required 16 Total Investment 17 Number Required 17 Number Required 18 Data Communications - OC-48 357C 35		C.O. Node - OC-48 (BLSR) Intermediate	357C		SONET Fundamental Investment Model
10 C.O. Interface DS1 on OC-48-Mux & Protect 357C \$ \$ \$ \$ \$ \$ \$ \$ \$		Number Required		2	
10 C.O. Interface DS1 on OC-48-Mux & Protect 357C Number Required Total Investment Total Investment SONET Fundamental Investment Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 10 * Line 11 Line 10 * Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 12 * Line 12 * Line 12 * Line 13 * Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * Line 11 Line 10 * L		Total Investment		\$	Line 6 * Line 7
11	-	O.O. I. Indiana DOA on OO 48 May 8 Protect	2570	•	SONET Eupdamental Investment Model
Total Investment Line 10 * Line 11 Line 14 * Line 15 Line 18 * Line 19 Line 22 * Line 23 Line 23 * Line 23 * Line 24 Line 24 * Line 24 * Line 24 * Line 24 * Line 25 * Line 27 Line 25 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 26 * Line 27 Line 27 Line 27 Line 28 * Line			3576	•	
13 14 C.O. Interface DS1 on OC-48-Working 357C SONET Fundamental Investment Model		•		_	
15		, 2.12			
Total Investment S	14	C.O. Interface DS1 on OC-48-Working	357C	*	SONET Fundamental Investment Model
17	15	•		-	
18 Data Communications - OC-48 Number Required 20		Total Investment		\$	Line 14 * Line 15
19		Data Communications OC 48	2570		SONET Sundamental Investment Model
20	-		35/6	·	
21 22 C.O. Connection STS-1 on OC-48-Mux & Protect 357C \$ 30NET Fundamental Investment Model 24		•			
Number Required 1				•	
24	22	C.O. Connection STS-1 on OC-48-Mux & Protect	357C	\$	SONET Fundamental Investment Model
25 26 C.O. Connection STS-1 on OC-48-Working 357C Number Required 2 Network 28 Total Investment \$ Line 26 * Line 27 30 Fiber - OC-48 BLSR Per Mile Per Strand 822C \$ SONET Fundamental Investment Model 31 Number Strands 3 Network 32 Number Miles 32 Network 33 Total Investment \$ Line 30 * (Line 31 * Line 32) 34 35 Fiber - OC-48 BLSR Per Mile Per Strand 845C \$ SONET Fundamental Investment Model 36 Number Strands 3 Network 37 Number Miles 32 Network 38 Total Investment		•		_	
26 C.O. Connection STS-1 on OC-48-Working 357C Number Required Total Investment \$ SONET Fundamental Investment Model Line 26 * Line 27		Total investment		t	Line 22 * Line 23
27		C.O. Connection STS-1 on OC-48-Working	3570	•	SONET Fundamental Investment Model
28			3310	2	
SONET Fundamental Investment Model SONET Fundamental Investment Model		•			
31					
Number Miles 32 Network			822C	\$	
Total Investment Size Continue Size Continue					
34 35 Fiber - OC-48 BLSR Per Mile Per Strand 845C \$ SONET Fundamental Investment Model 36					
Some Some		I COM HIVE SUITE III		₩	Line 30 (Line 31 Line 32)
36		Fiber - OC-48 BLSR Per Mile Per Strand	845C	\$	SONET Fundamental Investment Model
38				3	Network
39 40 Fiber - OC-48 BLSR Per Mile Per Strand 85C \$ SONET Fundamental Investment Model 41 Number Strands 3 Network 42 Number Miles 32 Network 43 Total Investment \$ Line 40 ° (Line 41 ° Line 42) 44 45 Design 2 - OC-48 Ring Total Investment 357C \$ Ln4+Ln8+Ln12+Ln16+Ln20+Ln24+Ln28 46 822C \$ Line 33 47 845C \$ Line 38 48 85C \$ Line 43				32	
40 Fiber - OC-48 BLSR Per Mile Per Strand 85C \$ SONET Fundamental Investment Model 41 Number Strands 3 Network 42 Number Miles 32 Network 43 Total Investment \$ Line 40 * (Line 41 * Line 42) 44 45 Design 2 - OC-48 Ring Total Investment 357C \$ Ln4+Ln8+Ln12+Ln16+Ln20+Ln24+Ln28 46 822C \$ Line 33 47 845C \$ Line 38 48 85C \$ Line 43					Line 35 * (Line 36 * Line 37)
41 Number Strands 3 Network 42 Number Miles 32 Network 43 Total Investment \$ Line 40 * (Line 41 * Line 42) 44 45 Design 2 - OC-48 Ring Total Investment 357C \$ Ln4+Ln8+Ln12+Ln16+Ln20+Ln24+Ln28 46 822C \$ Line 33 47 845C \$ Line 38 48 85C \$ Line 43			950	•	CONET Eundomental Investment Model
42 Number Miles 32 Network 43 Total Investment \$ Line 40 * (Line 41 * Line 42) 44 45 Design 2 - OC-48 Ring Total Investment 357C \$ Ln4+Ln8+Ln12+Ln16+Ln20+Ln24+Ln28 46 822C \$ Line 33 47 845C \$ Line 38 48 85C \$ Line 43					
43				=	-
45 Design 2 - OC-48 Ring Total Investment 357C \$ Ln4+Ln8+Ln12+Ln16+Ln20+Ln24+Ln28 46 822C \$ Line 33 47 845C \$ Line 38 48 85C \$ Line 43	43	Total Investment		\$	Line 40 * (Line 41 * Line 42)
46 822C \$ Line 33 47 845C \$ Line 38 48 85C \$ Line 43 49		•			
47 845C \$ Line 38 48 85C \$ Line 43 49					
48 85C \$ Line 43 49					—
49 F23P01V 000311					
50 Private/Proprietary: No disclosure outside Bell South except by written agreement F23B01X 000311				•	
	50	Private/Proprietary: No disclo	sure ou	tside <i>Bell</i> South exc	ept by written agreement F23B01X 000311

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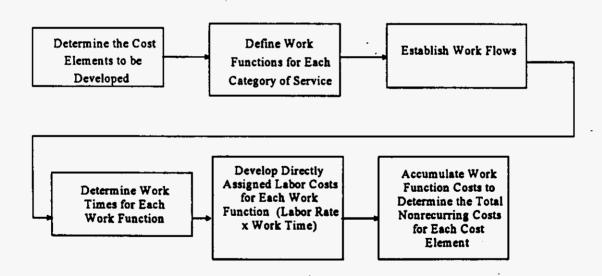
FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

COST DEVELOPMENT - NONRECURRING

Nonrecurring costs are one-time costs incurred as a result of provisioning, installing, disconnecting and completion of orders initiated by a customer request for the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access. The Nonrecurring Cost Study is performed to determine the service order, provisioning and disconnect costs associated with the cost element listed above. Calculations for the nonrecurring costs are included in this section.

Figure 5-1 shows a generalized flow of the steps necessary for developing nonrecurring costs. Each part of this flow will be explained in more detail in this section.

Figure 5-1
Generalized Flow Diagram for Developing Nonrecurring Costs



The first step in developing nonrecurring costs is to determine the cost elements to be studied. Each cost element is then described by all of the individual work functions required to provision the element.

The work functions required to provide the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access can be grouped into four categories. These are:

- 1) Service Order
- 2) Engineering
- 3) Connect and Test
- 4) Technician Travel Time

Work functions included in these categories range from clerical activities to installation activities.

The next step in developing nonrecurring costs requires that Company Subject Matter Experts identify the work functions and work times involved in the provisioning of the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access. These work functions and work times are then used to describe the flow of work within the various work centers involved in provisioning the element.

A spreadsheet model is used to incorporate the specific work functions and labor rates. In order to arrive at the nonrecurring cost for the element studied, the work times for each work function required is multiplied by the appropriate levelized labor rate. The labor inflation factors (LIF) are used to bring the labor rate to the appropriate study period. The labor rates and the labor inflation factors are shown in Section 7. Next, the individual work function costs are accumulated into the installation cost for the element studied.

Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as the installation costs. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

Nonrecurring costs are calculated separately on a first and additional basis. "First" refers to the first item on a service order. "Additional" costs are the incremental costs of providing one or more duplicates of the first item on the same service order at the same time as the first.

The following workpapers reflect the cost development.

SUMMARY OF NONRECURRI	NG COSTS	STATE: WORKPAPER: PAGE: DATE:	FLORIDA 700 1 OF 3 Aug-96
SPECIAL ACCESS VOICE GR INTEROFFICE CHANNEL VOI 1 - 8 MILES	ADE SERVICE CE-UNBUNDLED EXCHANGE AC	CESS	
(1996–1998 Level Increment	al Costs)	A	B
1 DESCRIPTION	SOURCE	FIRST	ADDTL
2 3 Service Order	WP750P1 Col G LN6 and LN8	•	
4 5 Engineering	WP750P1 Col G LN10		
6 7 Connect & Test	WP750P1 Col G LN12 and LN1	4	
8 9 Technician Travel Time 10	NA	NA	. NA
11 12 Total Nonrecurring Cost 13 14	Sum of L3, L5, L7		

SUMMARY OF NONRECURRI	ų ф совтв	STATE: WORKPAPER: PAGE: DATE:	FLORIDA 700 2 OF 3 Aug – 96
SPECIAL ACCESS VOICE GR INTEROFFICE CHANNEL VOI 9 - 25 MILES	ADE SERVICE CE-UNBUNDLED EXCHANGE	ACCESS	
(1996-1998 Level Incrementa	al Costs)	A	$\mathcal B$
1 DESCRIPTION	SOURCE	<u>FIRST</u>	ADDTL
2 3 Service Order	WP750P2 Col G LN6 and L	.N8	
4 5 Engineering	WP750P2 Col G LN10		
6 7 Connect & Test	WP750P2 Col G LN12 and	LN14	
8 9 Technician Travel Time 10	NA	NA	NA
11 12 Total Nonrecurring Cost 13	Sum of L3, L5, L7	<u>s</u>	
14 15 16			
17 18 19 20			

SUMMARY OF NONRECURRING COSTS	STATE: WORKPAPER:	FLORIDA 700
	PAGE:	3 OF 3
	DATE:	Aug-96
SPECIAL ACCESS VOICE GRADE SERVICE		

SPECIAL ACCESS VOICE GRADE SERVICE	
INTEROFFICE CHANNEL VOICE-UNBUNDLED EXCHANGE	BE ACCESS
> 25 MILES	

(1996-1998 Level Incrementa	A	B	
1 DESCRIPTION	SOURCE	FIRST	ADDTL
2 3 Service Order	WP750P3 Col G LN6 and LN8		
4 5 Engineering	WP750P3 Col G LN10		
6 7 Connect & Test	WP750P3 Col G LN12 and LN14		
8 9 Technician Travel Time 10	NA	NA	NA
11 12 Total Nonrecurring Cost	Sum of L3, L5, L7		
13 14			
15 16			
17 18			
19 20			

16 TOTAL NONRECURRING COST

INTEROFFICE CHANNEL VOICE-LINBUNDLED EXCHANGE ACCESS

STATE: WORKPAPER: PAGE:

DATE:

FLORIDA 750 1 OF 3 Jul - 96

DIRECTLY ASSIGNED

1 2 3 4 5 DESCRIPTION 6 CUSTOMER POINT OF CONTACT—ICSC 7 8 NETWORK PLUG—IN ADMINISTRATION—PICS 9 10 CIRCUIT PROVISIONING CENTER—CPC 11 12 NETWORK ADMINISTRATION 13 14 CO INSTALL & MTCE—CKT&FAC—NTEL	A B INSTALL WORKTIMES (HRS) FIRST ADDTL	(B) O D DISCONNECT WORKTIMES (HRS) FIRST ADDTL	LABOR	FINSTALL COST (A°C) FIRST ADDTL	IE). H I. DISCONNECT COST (B*C) FIRST ADDTL	DISCOUNTED DISCONNECT COST (E*DDF) FIRST ADDTL	(EQ (D+F)*(1 TOTAL FIRST	M +GRT) TOTAL ADDTL
14 CO INSTALL & MTCE-CREAFAC-NTEL			\$41.04					;

FLORIDA

750

2 OF 3

Jul-96

M

TOTAL

ADOTL

(D+F)*(1+GRT)

TOTAL

FIRST

16 TOTAL NONRECURRING COST

19 20

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

SPECIFIC STUDY ASSUMPTIONS

The cost study for the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access for the state of Florida is based on direct incremental costing techniques that are in accordance with accepted economic theory, in addition to specific Network deployment strategies, first choice provisioning quidelines, and equipment purchasing information.

Cost study assumptions are as follows.

 i^{i}

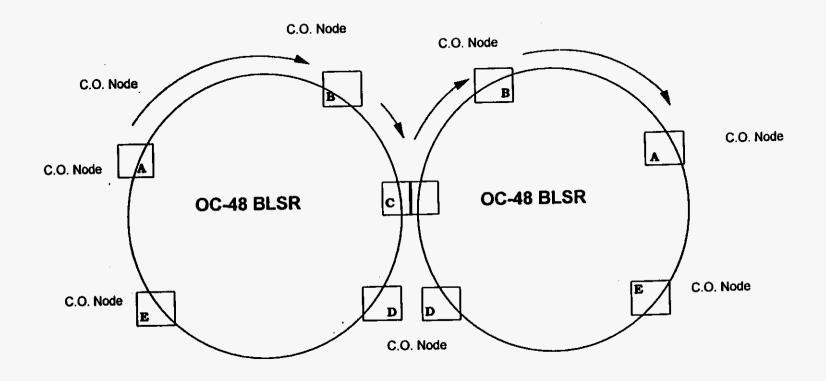
1. Two architectures are studied to develop these costs. The 0 through 8 mile band includes Design 1 and 2 weighted 18 percent and 82 percent, respectively. The 9 through 25 mile band and the Greater than 25 mile band include Design 2 only.

Diagrams of the two architectures are found on the following pages.

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DESIGN #2

FLORIDA



Equipment

OC-48(BLSR) C.O. Node
OC-48(BLSR) C.O. Node Intermediate
C.O. Interface
Data Communications Equipment
Fiber
Ring Connection

Nodes = 5
Circumference = 40 mi
No. Traffic Segments = 2
Avg. Segment Distanc = 8 mi

Nodes = 5
Circumference = 40 mi
No. Traffic Segments = 2
Avg. Segment Distanc = 8 mi

13 3

PLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

FACTORS AND LOADINGS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the Special Access Voice Grade Service Interoffice Channel Voice - Unbundled Exchange Access cost study for Florida.

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

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FACTORS AND LOADINGS

Telephone Plant Index	357C 822C 845C 85C	1.00 1.00 1.00 1.00
In-Plant Factors Hardwired Common Plug-ins Deferrable Plug-ins	357C	1.870 1.060 1.060
Levelization Factor	357C 822C 845C 85C	0.970 1.003 1.041 1.000
Misc. Common Equipment and Power Factor	357C	1.1202
Gross Receipts Tax (Gros	s-up Factor)	0.0152
Discounted Disconnect (D	DF)	0.9080
Land Loading	20C	0.0030
Building Loading	100	0.0404
Pole Loading	1C	0.2522
Conduit Loading	4C	0.3895
Gross Receipts Tax Facto	r	0.0152
Annual Cost Factors:		
Digital Circuit Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax TIRKS Expense Gross Receipts Tax	357C x	0.1134 0.0638 0.0297 0.0086 0.0113 0.0052 0.0035

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

FACTORS AND LOADINGS

Aerial Fiber	822C	
Depreciation		0.0667
· Cost of Money		0.0784
Income Tax		0.0347
Maintenance		0.0139
Ad Valorem Tax		0.0113
Gross Receipts	Tax	0.0031
Buried Fiber	845C	
Depreciation		0.0585
Cost of Money		0.0816
Income Tax		0.0367
Maintenance		0.0144
Ad Valorem Tax		0.0113
Gross Receipts	Tax	0.0031
Underground Fiber	85C	
Depreciation		0.0626
Cost of Money		0.0800
Income Tax		0.0358
Maintenance		0.0135
Ad Valorem Tax		0.0113
Gross Receipts	Tax	0.0031
Land	20C	
Depreciation		0.0000
Depreciation Cost of Money	20C	0.0000 0.1118
Depreciation Cost of Money Income Tax		0.1118 0.0514
Depreciation Cost of Money Income Tax Maintenance		0.1118 0.0514 0.0000
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax	٠.	0.1118 0.0514 0.0000 0.0113
Depreciation Cost of Money Income Tax Maintenance	٠.	0.1118 0.0514 0.0000
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole	٠.	0.1118 0.0514 0.0000 0.0113 0.0027
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation	Tax	0.1118 0.0514 0.0000 0.0113 0.0027
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money	Tax	0.1118 0.0514 0.0000 0.0113 0.0027
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax	Tax	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance	Tax	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax	Tax 1C	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279 0.0113
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance	Tax 1C	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Conduit	Tax 1C	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279 0.0113 0.0032
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Conduit Depreciation	Tax 1C Tax	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279 0.0113 0.0032
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Conduit Depreciation Cost of Money	Tax 1C Tax	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279 0.0113 0.0032
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Conduit Depreciation Cost of Money Income Tax	Tax 1C Tax	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279 0.0113 0.0032
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Conduit Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts	Tax 1C Tax 4C	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279 0.0113 0.0032
Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Pole Depreciation Cost of Money Income Tax Maintenance Ad Valorem Tax Gross Receipts Conduit Depreciation Cost of Money Income Tax	Tax 1C Tax 4C	0.1118 0.0514 0.0000 0.0113 0.0027 0.0671 0.0725 0.0325 0.0279 0.0113 0.0032

FLORIDA SPECIAL ACCESS VOICE GRADE SERVICE INTEROFFICE CHANNEL VOICE - UNBUNDLED EXCHANGE ACCESS

FACTORS AND LOADINGS

Building	10C		
Depre	ciation	0.0302	
Cost	of Money	0.0986	
Income	e Tax	0.0452	
Mainte	enance	0.0069	
Ad Val	lorem Tax	0.0113	
Gross	Receipts Tax	0.0029	
Directly Ass	igned Hourly Labor Rates		
•	•	<u> 1995</u>	Levelized
Customer	Point of Contact (ICSC) -		
Inter	exchange Carrier Service Ctr	\$38.30	\$40.80
CO Instal	1 & Mtce - Ckt & Fac (NTEL)		
	rk Terminal Eqpt Installation	\$39.09	\$41.64
Circuit P	rovisioning Center (CPC)	\$34.41	\$35.65
Network P	lug-In Administration (PICS) -		
	In Control System	\$41.65	\$44.56
Network A	dministration	\$32.89	\$35.03

To create a Levelized labor rate from a 1995 Labor Rate:

NOTE: Infl = Labor Inflation COM = Cost of Money

Example:

 $$38.30 + [(1.032/1.132^1)+((1.032*1.035)/1.132^2)+(1.032*1.035*1.034)/(1.132^3)]/((1/1.132^1)+(1/1.132^2)+(1/1.132^3)) = 40.80

Labor Inflation

Telco Eng.	
Year 1	3.4%
Year 2	3.8%
Year 3	3.6%
Telco COE	
Year 1	3.2%
Year 2	3.5%
Year 3	3.4%

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FLORIDA



OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVICE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 6

FLORIDA

OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVICES COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING LRIC AND TSLRIC
SECTION 5	SPECIFIC STUDY ASSUMPTIONS
SECTION 6	FACTORS AND LOADINGS

TAB A

SECTION A

OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVICES PROPRIETARY RATIONALE

The Operator Provided and Fully Automated Call Handling Services Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Operator Provided and Fully Automated Call Handling Services Cost Study is considered proprietary.

OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVICES INTRODUCTION AND OVERVIEW

This cost study develops the Long Run Incremental Cost (LRIC) and the Total Service Long Run Incremental Cost (TSLRIC) per minute for Operator Provided Call Handling and per call for Fully Automated Call Handling Services. LRIC is the volume sensitive incremental unit cost. TSLRIC is the volume sensitive and volume insensitive incremental unit cost, the average incremental unit cost. These costs are comprised of: (1) Operator Labor; (2) the operators' position hardware, software, and dedicated circuits associated with the Operator Service Center (OSC); (3) the software providing Operator Service functionality in the Operator Service System (OSS); (4) switching and transport, (5) the Automated Alternative Billing Services system which provides functionality for automated call handling; and (6) the Line Identification DataBase system providing calling card verification, and screening on collect and bill-to-third calls. The OSS software, the AABS software, the Gateway portion of the AABS hardware and the non-investment related LIDB expenses are volume insensitive. The remaining components are a function of demand and are, accordingly, volume sensitive.

Operator Provided Call Handling Service is labor intensive. The study is a capacity cost study in that the operator labor varies directly with the number of calls and the operators' tours can be rescheduled on a relatively short interval. The primary cost, the operator labor expense, is continuously adjusted to meet demand.

The study is based on directly assigned labor costs, current vendor prices for hardware and software, and incremental annual cost factors.

OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVICES DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Operator Provided and Fully Automated Call Handling Services.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. Costs for a service may include volume sensitive and/or volume insensitive costs. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. There are no nonrecurring costs associated with Operator Provided and Fully Automated Call Handling Services. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs may also be non-investment related, such as operator labor, feature specific software and contract expenses. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for Operator Provided and Fully Automated Call Handling Services is to determine the forward-looking network architecture. Prices for the software and equipment are defined. Next, account specific Telephone Plant Indexes are applied, when necessary, to trend investments to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor.

Appropriate loadings for land, building and miscellaneous common equipment and power are then applied to the electronic equipment. Support structure loadings are applied for poles and conduit to the aerial and underground fiber investments respectively.

Next, 1995 level Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each Uniform System of Account Field Reporting Code) are applied to levelized investments by account code, yielding an annual cost per account code. Both the investment and non-investment related annual costs are summed and then divided by annual demand to arrive at a unit cost for each component.

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OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVICES SUMMARY OF RESULTS

This section contains a cost summary for the volume sensitive Long Run Incremental Cost and Total Service Long Run Incremental Cost for Operator Provided and Fully Automated Call Handling Services.

Α

OPERATOR PROVIDED COST PER MINUTE

9 LRIC, Volume Sensitive Unit Cost TSLRIC, Average Incremental Unit Cost

AUTOMATED COST PER CALL

12 LRIC, Volume Sensitive Unit Cost
13 TSLRIC, Average Incremental Unit Cost

1/

--PRIVATE--

THE INFORMATION CONTAINED HEREIN IS PROPRIETARY AND SHOULD NOT BE DISCLOSED TO UNAUTHORIZED PERSONS. IT IS MEANT SOLELY FOR USE BY AUTHORIZED EMPLOYEES OF THE BELLSOUTH COMPANIES.

1:

OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVICES COST DEVELOPMENT

This section defines the cost development for Operator Provided and Fully Automated Call Handling Services.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; material prices are obtained; utilization and loading factors are applied. Annual cost factors are applied to convert the investment to cost. Labor expense is directly identified.

Workpaper 1

The volume sensitive (LRIC) and volume insensitive unit costs are summarized, and the average incremental cost (TSLRIC) is calculated. These unit costs are per minute for operator handled and per call for fully automated.

Workpaper 2

The volume sensitive and volume insensitive costs per call are summarized for each individual call type. Where costs for individual components are developed per minute, they are converted to a cost per minute using the Actual Work Time (shown in seconds) or Facility Work Seconds (for automated calls).

Workpaper 3

The operator cost per minute is developed using the directly assigned labor cost per productive hour. The cost per hour is divided by 60 minutes and then adjusted by the ratio of productive hours to call processing hours.

Workpaper 4

The Operator Service Center (OSC) software cost per minute is derived by multiplying the equivalent annual cost per position times the number of positions and dividing it by the projected demand in minutes for 1995.

The hardware investment per position is loaded for incremental common equipment, power, land, and building investment. The investments are multiplied by the number of positions and their corresponding annual cost factors to calculate the associated annual cost. The annual cost is divided by the projected annual minutes for 1995 to develop the hardware cost per minute. The circuit and mileage quantities for the message and data circuits from the positions were multiplied by their fixed and mileage sensitive unit investments, and associated annual cost factors to calculate

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the annual cost. The mileage for each route was calculated from the vertical and horizontal coordinates of the Operator Service Center locations and the host Operator Service System. As with the hardware, the annual cost was divided by the 1995 annual minutes to product the cost per minute.

The total cost per minute for the Operator Service Center (OSC) is the sum of the software, hardware and circuit cost per minute.

Workpaper 5

The equivalent annual cost for the software in the Operator Service Systems is divided by the projected 1995 calls to develop the OSS cost per call.

Workpaper 6

The fundamental switching and transport cost per minute is used to develop usage costs to the Host Tandem.

The cost for the verification and emergency interrupt calls from the operator to the line to be monitored are developed using the switching and transport cost per minute and the estimated time required for the verification and emergency interrupt functions.

Workpaper 7

The Automated Alternative Billing Service (AABS) System is comprised of Gateway Switches for routing and control, Interactive Voice Systems for voice prompts and recording, and associated circuits. This System provides automated call processing functionality for 0+ Calling Card, Collect and Billed-to-Third calls.

The hardware investment for the Gateway switches to the Interactive Voice Systems (IVS) and the Systems themselves were multiplied by the associated annual cost factor. The annual costs for the data circuits, the Gateway and IVS hardware were summed along with the annual software expense. These costs were divided by the systems engineered capacity to calculate the cost per automated call.

The Gateway hardware and system software is volume insensitive.

AABS is a Regional study.

Workpaper 8

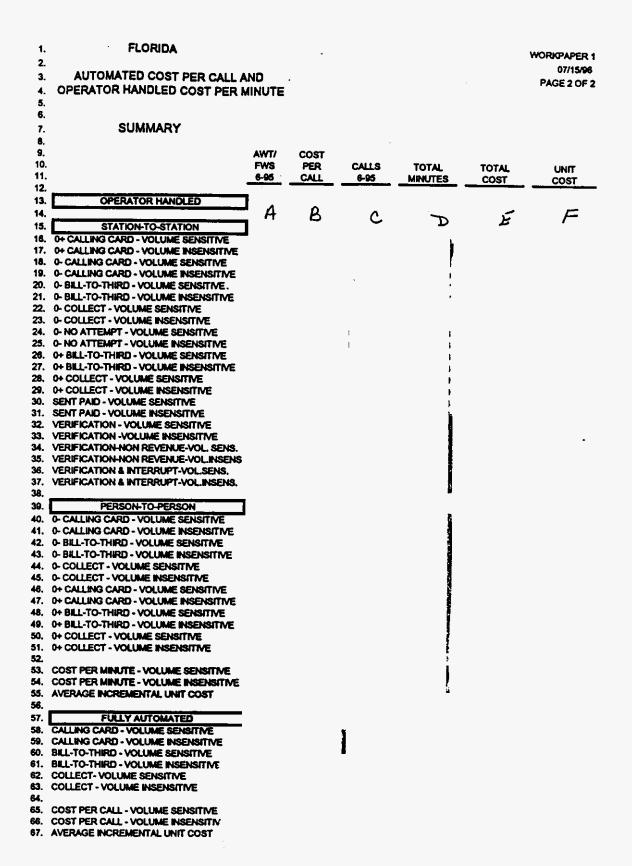
The cost of calling card validation and billed number screening is developed by weighting the costs to BellSouth's Line Identification DataBases (LIDBs) with the charges from foreign LIDBs (e.g., to Bell Atlantic to validate their Calling Card).

As with AABS, this is a Regional study of Regional Systems.

The following workpapers detail this development.

1 12

1. 2.	FLORIDA	WORKPAPER 1
3.	OPERATOR PROVIDED AND	07/15/96 PAGE 1 OF 2
4. 5.	FULLY AUTOMATED CALL HANDLING SERVICES	
6.	SUMMARY	
7.		
8. 9.		Λ
10.		π
11.	OPERATOR PROVIDED COST PER MINUTE	
12.	LRIC, VOLUME SENSITIVE UNIT COST	
13. 14.	VOLUME INSENSITIVE UNIT COST TSLRIC, AVERAGE INCREMENTAL UNIT COST	
15.	TO THE COLUMN THE COLU	
6.		
7 .	AUTOMATED COST PER CALL	
8.	LRIC, VOLUME SENSITIVE UNIT COST	
19. 20.	VOLUME INSENSITIVE UNIT COST TSLRIC, AVERAGE INCREMENTAL UNIT COST	
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PAGE 1 OF 1								NCES	OPERATOR PROVIDED AND COLLY AUTOLING SERV	.£
COST PER CALL	GROSS RECEIPTS (.0152)	60 (1	SBAA	SWITCHING TRANSPORT	SSO	osc	.Я90 Я08A1	EWS FWS	SUMMARY OF COST BY CALL TYPE	.8 .7 .8
I	H	<u>v</u>			<u> </u>	<u>~~</u>	8	<u>+</u>	0+ CYTTING CYBD - AOTHWE INSENSULINE	10, 11, 12, 13, 14,
	<u>.</u> .								0- CALLING CARD - VOLUME BENSITIVE 0- CALLING CARD - VOLUME SENSITIVE 21 ATTOM-TO-STATION	.51 17.
									0- COLLECT - VOLUME SENSITIVE 0- NO ATTEMPT - VOLUME SENSITIVE 0- NO ATTEMPT - VOLUME SENSITIVE 0- NO ATTEMPT - VOLUME SENSITIVE 0- BILL-TO-THIRD - VOLUME SENSITIVE	23. 23.
						-			AUTOMATED BILL-TO-THIRD - VOLUME INSENSITIVE AUTOMATED BILL-TO-THIRD - VOLUME INSENSITIVE O+ COLLECT - VOLUME INSENSITIVE O+ COLLECT - VOLUME SENSITIVE O+ C	38' 30' 31' 32' 30' 31' 38'
								Constant of Constant	VERIFICATION - VOLUME SENSITIVE VERIFICATION - VOLUME INSENSITIVE VERIFICATION-HON REVENUE-VOL. SENS. VERIFICATION & INTERSUPT-VOL.SENS. VERIFICATION & INTERSUPT-VOL.INSENS. VERIFICATION & INTERSUPT-VOL.INSENS.	.96
								<u>. </u>	0+ BITF-10-JHIND -NOTINNE RENZILINE 0+ CYTTING CYND - NOTINNE INZENZILINE 0+ CYTTING CYND - NOTINNE INZENZILINE 0+ CYTTING CYND - NOTINNE SENZILINE	22° 23° 23° 23° 24° 48° 48° 48° 48° 48° 48° 48° 48° 48° 4

1. 2.	FLORIDA OPERATOR PROVIDED AND		WORKPAPER 3 07/15/96
3. 4.	FULLY AUTOMATED CALL HANDLING SERVICES		PAGE 1 OF 1
5. 6.	OPERATOR LABOR		A
7. 3.	OPERATOR LABOR PER PRODUCTIVE HOUR - 1996-1998		\$26.01
}. 0.	RATIO PRODUCTIVE TO CALL PROCESSING HOURS		
1.	OPERATOR COST PER MINUTE - VOLUME SENSITIVE	(LN7/60) × (LN9)	

1. 2.	FLORIDA				WORKPAPER 4 07/15/96
3.	OPERATOR PROVIDED AND				PAGE 1 OF 1
4.	FULLY AUTOMATED CALL HANDLING SE	ERVICES			TAGETOIT
5.					
6.	OPERATOR SERVICE CENTER (OSC)				A
7.					
8.	POSITIONS				
9.	DEMAND - MINUTES, 1995				
10.					
11.	SOFTWARE				
12.	WORKSTATION SOFTWARE, PER POSITION				
13.	OPEN POSITION PROTOCOL, PER POSITION	,			
14.	ANNUITY FACTOR				0.2857
15.	EQUIVALENT ANNUAL COST		((LN8xLN14) x (LN12+LN	13))	
16.	SOFTWARE COST PER MINUTE		(LN15)/(LN9)		
17.	HADDWADE				
18. 19.	HARDWARE				
19. 20.	INVESTMENT PER POSITION MCE&P FACTOR				
21.	LAND FACTOR				1.0962
22.	BUILDING FACTOR				0.0030 0.0404
23.	ANNUAL COST FACTOR - DIGITAL SWITCH				0.0404
24.	ANNUAL COST FACTOR - LAND				0.1745
25.	ANNUAL COST FACTOR - BUILDING				0.1922
26.	ANNUAL COST - POSITION		LN8xLN9xLN20xLN23		0.1042
27.	ANNUAL COST - LAND		LN8xLN19xLN21xLN24		
28.	ANNUAL COST - BUILDING		LN8xLN19xLN22xLN25		
29.	TOTAL ANNUAL COST		LN26+LN27+LN28		
	HARDWARE COST PER MINUTE		LN29/LN9		
31.					
32.	VOICE AND DATA CIRCUITS		-		
33.	4/5.61 UT TES. 1144 TIGA	CIRCUITS	UNIT	ANNUAL	ANNUAL
34.	CIRCUIT TERMINATION	MILES	INVESTMENT	COST FACTOR	COST
35.	OIDOUIT	070	2440.00	0.0000	
36.	CIRCUIT	272	\$116.80	0.2268	\$7,205
37. 38.	· LAND BUILDING	272 272	\$0.37 \$5.04	0.1745 0.1922	\$18 \$263
39.	BUILDING	212	49.04	0.1922	\$ 203
40.	CIRCUIT MILEAGE		•		
41.	AERIAL	28,119	\$0.11	0.2050	\$634
42.	BURIED	28,119	\$0.32	0.2025	\$1,822
43.	UNDERGROUND	28,119	\$0.14	0.2032	\$800
44.	POLE	28,119	\$0.02	0.2113	\$119
45.	CONDUIT	28,119	\$0.09	0.1661	\$420
46.	CIRCUIT	28,119	\$1.45	0.2268	\$9,247
47.	BUILDING	28,119	\$0.06	0.1922	\$324
48.					
	CIRCUIT ANNUAL COST		SUM LN36LN47		\$20,850
50.					
	COST PER MINUTE		LN49/LN9		
52. 53.	TOTAL COST PER MINUTE - VOLUME SENSITIVE		LN16+LN30+LN51		

1. 2. 3. 4.	FLORIDA OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVIC	ES		WORKPAPER 5 07/15/96 PAGE 1 OF 1
5. 6.	OPERATOR SERVICE SYSTEM (OSS)			٥
7.	DEMAND - CALLS, 1995		A	0
8.	TOLL AND ASSIST		,,	
9.				
10.	SOFTWARE PER TANDEM		A:HOST (1)	B:REMOTE(8)
11.	BASIC		A.11001 (1)	0.NEMU12(0)
12.	AABS			
13.	TOTAL	LN11+LN12		
14.				THE RESERVE AND ADDRESS OF THE PERSON NAMED AND ADDRESS OF THE
15.	ANNUITY FACTOR	•		0.2857
16.				0.2031
17.	TOTAL COST	(LN15A+(8xLN15B))		
18.		• "		
19. 20.	ANNUALIZED COST	LN17 x LN21		
21.	COST PER CALL - VOLUME INSENSITIVE	LN23/LN8		

1. 2.	FLORIDA OPERATOR PROVIDED AND	WORKPAPER 6
3. 4.	FULLY AUTOMATED CALL HANDLING SERVICES	07/15/96 PAGE 1 OF 1
5. 6.	SWITCH AND TRANSPORT COST PER MINUTE - VOLUME SENSITIVE	A
7.	COST PER MINOTE - VOLUME SENSITIVE	
8. 9.	VERIFY/INTERRUPT FUNCTIONS	
10. 11.	VERIFICATION FUNCTION - MINUTES	
12. 13.	VERIFICATION & INTERRUPT FUNCTION - MINUTES	
14.	COST PER CALL - VERIFICATION	
5. 6.	VOLUME SENSITIVE	LN6xLN10
7 .	COST PER CALL - VERIFICATION & INTERRUPT	
8.	VOLUME SENSITIVE	LN6xLN12

1. 2. 3. 4.	FLORIDA OPERATOR PROVIDED AND FULLY AUTOMATED CALL HANDLING SERVI	CES			WORKPAPER 7 07/15/96 PAGE 1 OF 1
5. 6. 7.	AABS - REGIONAL				A
8. 9. 10.	DATA CIRCUITS	CIRCUITS/ MILES	UNIT INVESTMENT	ANNUAL COST FACTOR	ANNUAL COST
11. 12. 13.	CIRCUIT TERMINATION CIRCUIT LAND	2,875 2,875	\$139.23 \$0.34	0.2292 0.1745	\$91,746 \$171
14. 15. 16.	BUILDING CIRCUIT MILEAGE	2,875	\$5.68	0.1893	\$3,091
17. 18. 19.	AERIAL BURIED UNDERGROUND	483,925 483,925	\$0.12 \$0.39	0.2021 0.1989	\$11,736 \$37,539
20. 21.	POLE CONDUIT	483,925 483,925 483,925	\$0.15 \$0.03 \$0.08	0.2017 0.2137 0.1658	\$14,641 \$3,102 \$6,419
22. 23. 24.	CIRCUIT BUILDING	483,925 483,925	\$1.45 \$0.06	0.2292 0.1893	\$160,828 \$5,496
25. 26. 27.	TOTAL ANNUAL COST, DATA CIRCUITS - VOLUME SENS INVESTMENT - GATEWAY AND IVS	SITIVE			\$334,769
28. 29. 30.	VOLUME SENSITIVE VOLUME INSENSITIVE				
31. 32. 33.	ANNUAL COST - GATEWAY AND IVS			•	0.2527
34. 35. 36.	VOLUME SENSITIVE VOLUME INSENSITIVE				
37. 38. 39.	ANNUAL SOFTWARE EXPENSE GATEWAY AND IVS - VOLUME INSENSITIVE				
40. 41. 42.	CAPACITY, ANNUAL CALLS AABS COST PER AUTOMATED CALL				238,750,000
43. 44.	VOLUME SENSITIVE VOLUME INSENSITIVE				

1.	FLORIDA		WORKPAPER 8
2.	OPERATOR PROVIDED AND		07/15/96
3.	FULLY AUTOMATED CALL HANDLING SERVICES		PAGE 1 OF 1
4.			
5.			
6.	LIDB - REGIONAL		
7.			Д
8.			,,
9.	RATIO BST OSS QUERIES TO BST LIDB PER MONTH		0.57
10.	RATIO BST OSS QUERIES TO FOREIGN LIDB PER MONTH		0.43
11.			
12.	AVERAGE COST PER QUERY, BST LIDB - VOLUME SENSITIVE		\$0.0006
13.	AVERAGE COST PER QUERY, BST LIDB - VOLUME INSENSITIVE		\$0.0084
14.	AVERAGE CHARGE PER QUERY, FOREIGN LIDB - VOLUME SENSITIVE		
15.		•	
	WEIGHTED AVERAGE, VOLUME SENSITIVE	(LN9xLN12)+(LN10xLN14)	
17.	WEIGHTED AVERAGE, VOLUME INSENSITIVE	LN9xLN13	

OPERATOR PROVIDED AND AUTOMATED CALL HANDLING SERVICES SPECIFIC STUDY ASSUMPTIONS

The cost study for the Operator Provided and Automated Call Handling Services is based on direct incremental costing techniques that are in accordance with accepted economic theory, plus specific Network deployment strategies, first choice provisioning guidelines, and equipment purchasing information.

Cost study assumptions are as follows:

Software expenses were projected to the 1996-1998 study period using the telephone plant indexes and investment inflation factors of the associated (377C) investment.

Software expenses such as Right-To-Use fees are amortized over five years to develop an equivalent annual cost.

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16

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OPERATOR PROVIDED AND AUTOMATED CALL HANDLING SERVICES FACTORS AND LOADINGS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the Florida Operator Provided and Automated Call Handling Services cost study.

1996 - 1998 Directly Assigned Hourl Operator, JFC 2120	y Labor Rates: (Florida)	\$26.01
Operator Labor Inflation Rate From 1995		1.0618
Hardware Inflation Rate 377C (Florid	ia)	1.012
Ratio Productive to Call Processing I	Hours (Regional)	1.50
Amortization Factor (5 Years @ 13.2	%)	0.2857
Miscellaneous Common Equipment and Power Factor	377C (Florida)	1.0962
Gross Receipts Tax Factor (Florida)		1.0152
Land Loading	20C (Florida)	0.0030
Building Loading	10C (Florida)	0.0404

Annual Cost Factors (Florida & Regional see following spreadsheets)

Image Table: ACFCURRENT

1995 FLORIDA ACCOUNT AVERAGE ANNUAL COST FACTORS INCREMENTAL

• FOR USE IN SERVICE COST STUDIES ONLY

	fleid_code	depreciation	acfc_com b	acfc_inc tax	q ceb_exb	acfc_mice	acfc_adval tex	admin_dir g	acfc_oper_exp	tot_combined
	•		13.2%		(a+b+c)				(e+f+g)	(d+h)
LAND	= ====================================	0.0000	0.1118	0.0514	0.1632	0.0000	0.0113	0.000.0	0.0113	0,1745
BUILDINGS	10C, 110C, 810C	0.0302	0.0986	0.0452	0.1740	0.0069	0.0113	0.0000	0.0182	0.1922
ANALOG ELEC SWITCH	77C, 877C, 977C	0.2629	0.0680	0.0306	0.3615	0.0217	0.0113	0.0000	0.0330	0.3945
DIGITAL ELEC SWITCH	377C, 887C	0.1134	0.0651	0.0302	0.2087	0.0282	0.0113	0.0000	0.0395	0.2482
OPERATOR SYSTEMS	117C.417C	0.1063	0.0751	0.0404	0.2238	0.0040	0.0113	0,0000	0.0153	0.2391
RADIO	167C, 67C, 667C, 967C	0.1434	0.0750	0.0348	0.2532	0.0763	0.0113	0.0000	0.0676	0,3408
DIGTL CIRC-DDS	157C	0.1810	0.0675	0.0305	0.2790	0.0073	0.0113	0.0000	0.0186	0.2976
DIGTL CIRC-PAIR GAIN	257C,D257C,F257C	0.1134	0.0636	0.0268	0.2058	0.0089	0.0113	0,0000	0.0202	0.2260
DIGTL CIRC-OTHER	357C,T357C,F357C,857C,957C	0.1134	0.0638	0.0297	0.2089	0.0086	0.0113	0,0000	0,0199	0.2268
ANALOG CIRC-PAIR GAIN	457C	0.1689	0.0636	0.0248	0.2573	0.0000	0.0113	0,0000	0.0113	0.2686
ANALOG CIRC-OTHER	57C	0.1689	0.0639	0.0282	0.2610	0.0206	0.0113	0.0000	0.0319	0.2929
PBX	158C, 258C	0.2296	0.0771	0.0346	0.3413	0.0145	0.0113	0.0000	0.0258	0.3671
PUBLIC-COIN	198C, 188C	0.1483	0.0763	0.0348	0.2594	0.2084	0.0113	0.0000	0.2197	0.4791
PUBLIC-COINLESS	296C, 286C	0.1483	0.0763	0.0348	0.2594	0.1248	0.0113	0.0000	0.1361	0.3955
PUBLIC-COINLESS PUBLIC-OTHER	998C, 988C	0.1483	0.0763	0.0348	0.2594	0.1062	0.0113	0.0000	0.1175	0.3769
	358C,D758C,858C,558C,	0.1733	0.0612	0.0350	0.2904	0.0548	0.0113	0.0000	0.0661	0.3565
OTHER TERMINAL EQPT	828C,928C,F958C	0,1733	0.0512	0.0358	0.2304	0.0040	0.0110	0.000		
SUBSCRIBER PAIR GAIN	758C,D758C,F758C	0.0000	00000	0.0000	0,0000	0.0000	0,0000	0.0000	0.0000	0.0000
POLES	1C. 811C	0.0671	0.0725	0.0325	0.1721	0.0279	0.0113	0.0000	0.0392	0.2113
AERIAL CA - METAL	22C, 12C, 802C	0.0017	0.0797	0.0338	0.2052	0,0571	0.0113	0,0000	0.0684	0.2736
AERIAL CA - FIBER	822C, 812C, 882C, 982C,D22C, F22C,T22C,D12C,F12C,T12C	0,0667	0.0784	0,0347	0,1798	0.0139	0.0113	0.0000	0.0252	0.2050
UNGROUND CA - METAL	5C, 805C	0.1036	0.0813	0.0342	0.2191	0.0291	0.0113	0.0000	0.0404	0.2595
UNGROUND CA - FIBER	85C,885C,985C,D5C,F5C,T5C	0.0626	0.0800	0.0358	0.1784	0.0135	0.0113	0.0000	0.0248	0.2032
BURIED CA - METAL	45C, 848C	0.0876	0.0809	0.0354	0.2039	0.0543	0.0113	0,0000	0.0656	0.2695
BURIED CA - FIBER	845C,856C,956C,D45C, F45C,T45C	0,0585	0.0816	0.0367	0.1768	0.0144	0.0113	0.0000	0.0257	0.2025
SUBMARINE CA-METAL	6C, 806C	0.0860	0.0814	0.0366	0.2040	0.0150	0.0113	0.0000	0.0263	0.2303
SUBMARINE CA-FIBER	86C,886C,D6C,F6C,T6C	0.0860	0.0814	0.0355	0.2029	0.0150	0.0113	0,0000	0.0263	0.2292
INTRBLD NTWK-METAL	52C	0.0661	0.0785	0.0340	0.1786	0.0320	0.0113	0.0000	0.0433	0.2219
INTRBLO NTWK-FIBER	852C,D52C,F52C,T52C	0.0661	0.0785	0.0340	0.1786	0.0320	0.0113	0.0000	0.0433	0.2219
CONDUIT SYSTEMS	4C, 84C, 94C	0.0242	0.0877	0.0401	0.1520	0.0028	0.0113	0.0000	0.0141	0.1661

Image Table: ACFCURRENT

1995 BELLSOUTH TELECOMMUNICATIONS ACCOUNT AVERAGE ANNUAL COST FACTORS INCREMENTAL

Rev 10-May-96
* FOR USE IN SERVICE COST STUDIES ONLY

	· field_code	depreciation	acfq_com b	acfo_ino tax	cap_exp	acfc_mice	acfc_adval tax	admin_dir 9	acfc_oper_exp h	tot_combined
		•	13.2%		(a+b+c)				(e+f+g)	(d+h)
	:	************		;# ########				*********		
TWD	200	0,0000	0.1118	0.0514	0.1632	0.0000	0.0113	0.0000	0.0113	0.1745
BUILDINGS	10C, 110C, 810C	0,0302	0.0966	0.0452	0.1740	0.0040	0.0113	0,0000	0.0153	0.1893
ANALOG ELEC SWITCH	77C, 877C, 977C	0.2629	0.0680	0.0306	0,3615	0.0210	0.0113	0.0000	0.0323	0.3938
DIGITAL ELEC SWITCH	377C, 887C	0.1134	0.0651	0.0302	0,2087	0.0327	0.0113	0.0000	0.0440	0.2527
OPERATOR SYSTEMS	117C,417C	0,1063	0.0751	0.0404	0.2238	0,0067	0.0113	0.0000	0.0180	0.2418
RADIO	167C, 67C, 867C, 967C	0,1434	0.0750	0.0348	0.2532	0.0142	0.0113	0,0000	0.0255	0.2787
DIGTL CIRC-DDS	157C	0.1810	0.0675	0.0305	0.2790	0.0145	0.0113	0.0000	0.0258	0.3048
DIGTL CIRC-PAIR GAIN	257C,D257C,F257C	0.1134	0.0636	0.0288	0.2058	0.0104	0.0113	0.0000	0.0217	0.2275
DIGTL CIRC-OTHER	357C,T357C,F357C,857C,957C	0.1134	0.0638	0.0297	0,2069	0.0110	0.0113	0.0000	0.0223	0.2292
ANALOG CIRC-PAIR GAIN	457C	0,1689	0.0636	0.0248	0.2573	0,0033	0.0113	0.0000	0,0146	0.2719
ANALOG CIRC-OTHER	57C	0.1689	0.0639	0.0282	0.2610	0,0140	0.0113	0,0000	0.0253	0.2863
PBX	158C, 258C	0.2295	0.0771	0.0346	0.3413	0,0368	0.0113	0.0000	0.0481	0.3894
PUBLIC-COIN	196C, 168C	0,1483	0.0763	0,0348	0.2594	0.1972	0.0113	0,0000	0.2085	0.4679
PUBLIC-COINLESS	296C, 268C	0.1483	0.0763	0.0348	0.2594	0.1076	0,0113	0.0000	0.1189	0.3783
PUBLIC-OTHER	996C, 988C	0,1483	0,0763	0,0348	0,2594	0,0582	0.0113	0,0000	0,0695	0.3289
OTHER TERMINAL EQPT	358C,D758C,858C,558C, 828C,928C,F958C	0.1733	0.0612	0.0359	0,2904	0.0585	0,0113	0.0000	0.0698	0.3602
SUBSCRIBER PAIR GAIN	758C,D758C,F758C	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0,0000	0,0000	0.0000
POLES	1C. 811C	0.0671	0.0725	0.0325	0.1721	0.0303	0.0113	0,0000	0.0416	0.2137
AERIAL CA - METAL	22C, 12C, 802C	0.0917	0.0797	0.0338	0.2052	0.0413	0.0113	0.0000	0.0526	0.2578
AERIAL CA - FIBER	822C, 812C, 882C, 982C, D22C, F22C, T22C, D12C, F12C, T12C	0.0667	0.0764	0.0347	0,1798	0.0110	0.0113	0.0000	0.0223	0.2021
UNGROUND CA - METAL	5C, 805C	0.1036	0.0613	0.0342	0.2191	0.0255	0.0113	0.0000	0.0368	0.2559
UNGROUND CA - FIBER	85C,885C,985C,D5C,F5C,T5C	0.0626	0.0000	0.0358	0.1784	0.0120	0.0113	0.0000	0,0233	0.2017
BURIED CA - METAL	45C, 846C	0.0876	0.0809	0.0354	0.2039	0.0417	0.0113	0.0000	0.0530	0.2569
BURIED CA - FIBER	845C,856C,956C,D45C, F45C,T45C	0,0585	0.0816	0,0367	0.1768	0.0108	0.0113	0,0000	0.0221	0.1989
SUBMARINE CA-METAL	6C, 806C	0.0860	0.0614	0.0366	0.2040	0.0106	0.0113	0.0000	0.0219	0.2259
SUBMARINE CA-FIBER	86C,886C,D6C,F6C,T6C	0.0860	0.0814	0.0355	0.2029	0.0106	0.0113	0.0000	0.0219	0.2248
INTRBLD NTWK-METAL	52C	0.0661	0.0785	0.0340	0.1786	0,0265	0.0113	0,0000	0.0378	0.2164
INTRBLO NTWK-FIBER	852C,D62C,F52C,T52C	0.0661	0.0785	0.0340	0.1788	0.0265	0.0113	0.0000	0,0378	0.2164
CONDUIT SYSTEMS	4C, 84C, 94C	0.0242	0.0877	0.0401	0.1520	0.0025	0.0113	0.0000	0.0138	0,1658

FLORIDA



VERIFICATION AND EMERGENCY INTERRUPT SERVICE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 6

FLORIDA

VERIFICATION AND EMERGENCY INTERRUPT SERVICE COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING LRIC AND TSLRIC
SECTION 5	SPECIFIC STUDY ASSUMPTIONS
SECTION 6	FACTORS AND LOADINGS

TAB A

SECTION A

VERIFICATION AND EMERGENCY INTERRUPT PROPRIETARY RATIONALE

The Verification and Emergency Interrupt Service Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Verification and Emergency Interrupt Service Cost Study is considered proprietary.

VERIFICATION AND EMERGENCY INTERRUPT SERVICE INTRODUCTION AND OVERVIEW

This cost study develops the Long Run Incremental Cost (LRIC) and the Total Service Long Run Incremental Cost (TSLRIC) per call for Verification and Emergency Interrupt Service. LRIC is the volume sensitive incremental unit cost. TSLRIC is the volume sensitive and volume insensitive incremental unit cost, the average incremental unit cost. These costs are comprised of: (1) Operator Labor; (2) the operators' position hardware, software, and dedicated circuits associated with the Operator Service Center (OSC); (3) the software providing Operator Service functionality in the Operator Service System (OSS); and, (4) the Verification/Interrupt calls. Operator labor, positions, circuits to the positions and the Verification/Interrupt calls are a function of demand and are, accordingly, volume sensitive. The software in the OSS is insensitive to demand.

Verification and Emergency Interrupt Service is labor intensive. The study is a capacity cost study in that the operator labor varies directly with the number of calls and the operators' tours can be rescheduled on a relatively short interval. The primary cost, the operator labor expense, is continuously adjusted to meet demand.

The Operator Service System is a software package that allows a tandem switch to provide directory assistance functionality. Its essential function is to act as an automated call distributor and directs Operator calls to the active operator position that has been idle the longest.

The operator position is a workstation that ties the operator to both the customer and the line called for verification/interrupt.

The study is based on directly assigned labor costs, current vendor prices for hardware and software, and incremental annual cost factors.

VERIFICATION AND EMERGENCY INTERRUPT SERVICE DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Verification and Emergency Interrupt Service.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. Costs for a service may include volume sensitive and/or volume insensitive costs. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. There are no nonrecurring costs associated with Verification and Emergency Interrupt Service. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs may also be non-investment related, such as operator labor, feature specific software and contract expenses. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for Verification and Emergency Interrupt Service is to determine the forward-looking network architecture. Prices for the software and equipment are defined. Next, account specific Telephone Plant Indices are applied, when necessary, to trend investments to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor.

Indexes are applied, when necessary, to trend investments and non-investment related expenses to the 1996-1998 base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor.

Appropriate loadings for land, building and miscellaneous common equipment and power are then applied to the electronic equipment. Support structure loadings are applied for poles and conduit to the aerial and underground fiber investments respectively.

Next, 1995 level Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each Uniform System of Account Field Reporting Code) are applied to levelized investments by account code, yielding an annual cost per account code. Both the investment and non-investment related annual costs are summed and then divided by annual demand to arrive at a unit cost for each component.

FLORIDA

VERIFICATION AND EMERGENCY INTERRUPT SERVICE SUMMARY OF RESULTS

This section contains a cost summary for the volume sensitive Long Run Incremental Cost and Total Service Long Run Incremental Cost for Verification and Emergency Interrupt Service.

COST PER CALL

VERIFICATION

LRIC, Volume Sensitive Unit Cost TSLRIC, Average Incremental Unit Cost

EMERGENCY INTERRUPT

LRIC, Volume Sensitive Unit Cost TSLRIC, Average Incremental Unit Cost

--PRIVATE--

THE INFORMATION CONTAINED HEREIN IS PROPRIETARY AND SHOULD NOT BE DISCLOSED TO UNAUTHORIZED PERSONS. IT IS MEANT SOLELY FOR USE BY AUTHORIZED EMPLOYEES OF THE BELLSOUTH COMPANIES.

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VERIFICATION AND EMERGENCY INTERRUPT SERVICE

COST DEVELOPMENT

This section defines the cost development for Verification and Emergency Interrupt Service.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; material prices are obtained; utilization and loading factors are applied. Annual cost factors are applied to convert the investment to cost. Labor expense is directly identified.

Workpaper 1

The verification and emergency interrupt volume sensitive (LRIC) and volume insensitive costs per call are summarized, and the average incremental cost (TSLRIC) per call is calculated.

Workpaper 2

The volume sensitive and volume insensitive costs per call are summarized for verification and emergency interrupt. Where costs for individual components are developed per minute, they are converted to a cost per minute using the Actual Work Time (shown in seconds).

Workpaper 3

The operator cost per minute is developed using the directly assigned labor cost per productive hour. The cost per hour is divided by 60 minutes and then adjusted by the ratio of productive hours to call processing hours.

Workpaper 4

The Operator Service Center (OSC) software cost per minute is derived by multiplying the equivalent annual cost per position times the number of positions and dividing it by the projected demand in minutes for 1995.

The hardware investment per position is loaded for incremental common equipment, power, land, and building investment. The investments are multiplied by the number of positions and their corresponding annual cost factors to calculate the associated annual cost. The annual cost is divided by the projected annual minutes for 1995 to develop the hardware cost per minute. The circuit and mileage quantities for the message and data circuits from the positions were multiplied by their fixed and mileage sensitive unit investments, and associated annual cost factors to calculate

the annual cost. The mileage for each route was calculated from the vertical and horizontal coordinates of the Operator Service Center locations and the host Operator Service System. As with the hardware, the annual cost was divided by the 1995 annual minutes to product the cost per minute.

The total cost per minute for the Operator Service Center (OSC) is the sum of the software, hardware and circuit cost per minute.

Workpaper 5

The equivalent annual cost for the software in the Operator Service Systems is divided by the projected 1995 calls to develop the OSS cost per call.

Workpaper 6

The cost for the verification and emergency interrupt calls from the operator to the line to be monitored are developed using the switching and transport cost per minute (for access) and the estimated time required for the actual verification and emergency interrupt functions.

1. 2.	FLORIDA VERIFICATION AND	WORKPAPER 1
		PAGE 1 0F 1
3.	EMERGENCY INTERRUPT SERVICE	07/15/96
4.		
5.	SUMMARY OF COST PER CALL	
10.		
11.		Α
12.		COST PER
13.		CALL
14.	VERIFICATION	
15.	VOLUME SENSITIVE UNIT COST	
16.	VOLUME INSENSITIVE UNIT COST	
17.	TSLRIC, AVERAGE INCREMENTAL UNIT COST	
18.		***
19.		
20.	EMERGENCY INTERRUPT	
21.	VOLUME SENSITIVE UNIT COST	
22.	VOLUME INSENSITIVE UNIT COST	
23.	TSLRIC, AVERAGE INCREMENTAL UNIT COST	

1. 2. 3. 4.	FLORIDA VERIFICATION AND EMERGENCY INTERRUPT SERVICE							WORKPAPER 2 PAGE 1 OF 1 07/15/96
5. 6.	SUMMARY OF COST BY CALL TYPE		_			E	F	G
7.	COMMENT OF COOT BY CALL TIPE	A	В	\subset	\mathcal{D}	VERIFICATION	GROSS	_
8.			OPERATOR		حب	INTERRUPT	RECEIPTS	COST PER
9.	•	AWT	LABOR	osc	oss	CALL	(.0152)	CALL
10.								
11.	VERIFICATION .		ŧ					
12.	VOLUME SENSITIVE UNIT COST		j					
13.	VOLUME INSENSITIVE UNIT COST	<u>`</u> ````						
14.	TSLRIC,							
15.	AVERAGE INCREMENTAL UNIT O	037						
16.	***************************************	***************************************	•••					
17.	EMERGENCY INTERRUPT							
18.	VOLUME SENSITIVE UNIT COST		,					3
19.	VOLUME INSENSITIVE UNIT COST	-	•					4
20.	TSLRIC,							
21.	AVERAGE INCREMENTAL UNIT O	OST.	*					W

1.	FLORIDA	RKPAPER
2.	VEDICIOATION AND	AGE 1 OF
3.	EMERGENCY INTERRUPT SERVICE	07/15/96
4.		07713796
5.		
6.	OPERATOR LABOR	
7.		A
8.	•	A
9.		
10.	OPERATOR LABOR PER PRODUCTIVE HOUR - 1996-1998 JFC: 2120	\$26.01
11.		J20.01
12.	RATIO PRODUCTIVE TO CALL PROCESSING HOURS	
13.		•
14.	OPERATOR COST PER MINUTE, VOLUME SENSITIVE (LN10/80) ¥ (LN12)	

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1. 2. 3. 4.	FLORIDA VERIFICATION AND EMERGENCY INTERRUPT SERVICE				WORKPAPER 4 PAGE 1 OF 1 07/15/96
5. 6. 7. 8.	OPERATOR SERVICE CENTER (OSC)				A
9. 10. 11.	POSITIONS DEMAND - MINUTES, 1995				
12. 13.	SOFTWARE WORKSTATION SOFTWARE, PER POSITI	ION			
14. 15.	OPEN POSITION PROTOCOL, PER POSIT				7 8 8 5, 7,70
16.	ANNUITY FACTOR				0.2857
17.	ANNUALIZED COST SOFTWARE COST PER MINUTE		(LN13 + LN14) x	(LN9)xLN15	
18.	SOFTWARE COST PER MINUTE		(LN16) / LN10		\$0.0460
19.	HARDWARE				
20.	INVESTMENT PER POSITION				
21.	MCE&P FACTOR				1.0962
22.	LAND FACTOR				0.0030
23.	BUILDING FACTOR				0.0404
24.	ANNUAL COST FACTOR (377C)				0.2482
25.	ANNUAL COST FACTOR (20C)				0.1745
26.	ANNUAL COST FACTOR (10C)				0.1922
27.			(LN9)(LN20)(LN2	• • •	
28.	ANNUAL COST - LAND		(LN9)(LN20)(LN2		
29. 30.	ANNUAL COST - BUILDING		(LN9)(LN20)(LN2		
31.	TOTAL ANNUAL COST HARDWARE COST PER MINUTE		(LN27+LN28+LN	29)	
32.	HANDWARE COST FER MINOTE		(LN30)/(LN10)		
33.	VOICE AND DATA CIRCUITS				
34.	·	CIRCUITS/	UNIT	ANNUAL	ANNUAL
35.	CIRCUIT TERMINATION	MILES	INVESTMENT	COST FACTOR	
36.	CIRCUIT (357C)	272	\$137.64	0.2268	\$8,491
37.	LAND (20C)	272	\$0.35	0.1745	\$17
38.	BUILDING (10C)	272	\$5.61	0.1922	\$293
39.			•		
40.	CIRCUIT MILEAGE				
41.	AERIAL (822C)	28,119	\$0.08	0.2050	\$461
42.	BURIED (845C)	28,119	\$0.29	0.2025	\$1,651
43.	UNDERGROUND (85C)	28,119	\$0.27	0.2032	\$1,543
44.	POLE (1C)	28,119	\$0.02	0.2113	\$119
45.	CONDUIT (4C)	28,119	\$0.17	0.1661	\$794
46. 47.	CIRCUIT (357C)	28,119	\$1.44	0.2268	\$9,183
48.	BUILDING (10C)	28,119	\$0.06	0.1922	\$324
49. 50.	TOTAL ANNUAL COST		SUM LN 36LN4	7	\$22,877
51. 52.	CIRCUIT COST PER MINUTE		LN49/LN10		
	TOTAL COST PER MINUTE - VOLUME SENS	SITIVE	(LN17 + LN31 +	LN51)	

1. 2. 3. 4. 5.	FLORIDA VERIFICATION AND EMERGENCY INTERRUPT SERVICE		WORKPAPER 5 PAGE 1 OF 1 07/15/96
6.	OPERATOR SERVICE SYSTEM (OSS)		_
7.	• •	Δ	R
8.	DEMAND - CALLS, 1995	<i>I</i> +	\mathcal{D}
9.	TOLL AND ASSIST		
10.			
11.			
12.	SOFTWARE PER TANDEM	A:HOST(1)	B:REMOTE(A)
13.	BASIC		
14.	AABS		
15.	TOTAL		
16.			
17.	ANNUITY FACTOR		0.2857
18.	ANNUALITED COOT		
19.	ANNUALIZED COST	((LN15A) + (8xLN15B)) x LN17	
20. 21.	COST PER CALL - VOLUME INSENSITIVE	ENTOCKO	

1.	FLORIDA	WORKPAPER 6
2.	VERIFICATION AND	PAGE 1 OF 1
3.	EMERGENCY INTERRUPT SERVICE	07/15/96
4.		07710730
5.	VERIFICATION/INTERRUPT CALLS	
6.	· · · · · · · · · · · · · · · · · · ·	
7.		Δ
8.	OSC TO LATA	<i>/</i> 1
9.		
10.	COST PER MINUTE	
11.	MINUTES PER CALL - VERIFICATION FUNCTION	
12.	MINUTES PER CALL - VERIFICATION & INTERRUPT FUNCTION	
13.		
14.	COST PER CALL	
15.	VERIFICATION - VOLUME SENSITIVE LN10xLN11	
16.		
17.	COST PER CALL	
18.	EMERGENCY INTERRUPT - VOLUME SENSITIVE LN10xLn12	

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VERIFICATION AND EMERGENCY INTERRUPT SERVICE

SPECIFIC STUDY ASSUMPTIONS

The cost study for the verification and emergency interrupt service for the state is based on direct incremental costing techniques that are in accordance with accepted economic theory, plus specific Network deployment strategies, first choice provisioning guidelines, and equipment purchasing information.

Cost study assumptions are as follows:

Software expenses were projected to the 1996-1998 study period using the telephone plant indexes and investment inflation factors of the associated (377c) investment.

Software expenses such as Right-To-Use fees are amortized over five years to develop an equivalent annual cost.

FLORIDA

VERIFICATION AND EMERGENCY INTERRUPT SERVICE

FACTORS AND LOADINGS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the Florida verification and emergency interrupt service cost study.

1996 - 1998 Directly Assigned Hou Operator, JFC 2120	urly Labor Rates: (Florida)	\$26.01
Operator Labor Inflation Rate From 1995		1.0618
Hardware Inflation Rate 377C (Flor	rida)	1.012
Ratio Productive to Call Processing	Hours (Regional)	1.50
Amortization Factor (5 Years @ 13	.2%)	0.2857
Miscellaneous Common Equipment and Power Factor	377C (Florida)	1.0962
Gross Receipts Tax Factor (Florida)		1.0152
Land Loading	20C (Florida)	0.0030
Building Loading	10C (Florida)	0.0404
Annual Cost Factors	(See following spreadsheet)	

1995 FLORIDA ACCOUNT AVERAGE ANNUAL COST FACTORS INCREMENTAL

• FOR USE IN SERVICE COST STUDIES ONLY

	field_code	depreciation	acfc_com b	acfe_ine tax	cap_exp d	acfc_mtce	acfc_adval tax	admin_dir	acfc_oper_exp h	tot_combined
·			13.2%		(a+b+c)				(a+f+g)	(d+h)
ekaneesusessassassassas LAND	20C	0.0000	0.1118	0.0514	0.1632	0.0000	0.0113	0.0000	0.0113	0,1745
BUILDINGS	10C, 110C, 810C	0.0302	0.0986	0.0452	0.1740	0.0069	0.0113	0,0000	0.0182	0.1922
ANALOG ELEC SWITCH	77C, 877C, 977C	0.2629	0.0680	0.0306	0.3615	0.0217	0.0113	0,0000	0.0330	0.3945
DIGITAL ELEC SWITCH	377C, 887C	0.1134	0.0651	0.0302	0.2087	0.0282	0.0113	0,0000	0.0395	0.2482
OPERATOR SYSTEMS	117C.417C	0.1083	0.0751	0.0404	0.2238	0.0040	0.0113	0,0000	0.0153	0.2391
RADIO	167C, 67C, 867C, 967C	0.1434	0.0750	0.0348	0.2532	0.0763	0.0113	0.0000	0.0876	0.3408
DIGTL CIRC-DDS	157C	0.1810	0.0675	0.0305	0.2790	0.0073	0.0113	0.0000	0.0188	0.2976
DIGTL CIRC-PAIR GAIN	257C,D257C,F257C	0.1134	0.0636	0.0288	0.2058	0.0089	0.0113	0.0000	0.0202	0.2260
DIGTL CIRC-OTHER	357C,T357C,F357C,857C,957C	0.1134	0.0638	0.0297	0.2069	0.0086	0.0113	0.0000	0.0199	0.2268
ANALOG CIRC-PAIR GAIN	457C	0.1689	0.0636	0.0248	0.2573	0.0000	0.0113	0.0000	0.0113	0.2686
ANALOG CIRC-OTHER	57C	0.1689	0.0639	0.0282	0.2610	0.0206	0.0113	0.0000	0.0319	0.2929
PBX	158C, 258C	0.2296	0.0771	0.0346	0.3413	0.0145	0.0113	0,0000	0.0258	0.2525
PUBLIC-COIN	198C, 188C	0.1483	0.0763	0.0348	0.2594	0.2084	0.0113	0.0000	0.2197	0.4791
PUBLIC-COINLESS	298C, 288C	0.1483	0.0763	0.0348	0.2594	0.1248	0.0113	0.0000	0.1361	0.3955
PUBLIC-OTHER	998C, 988C	0.1483	0.0763	0.0348	0.2594	0.1062	0.0113	0.0000	0.1175	0.3769
OTHER TERMINAL EQPT	358C,D758C,858C,558C,	0,1733	0.0612	0.0359	0.2904	0.0548	0.0113	0.0000	0.0661	0.3565
Office Texasion Co.	828C,928C,F958C	3,,,,3		0,000	J.255 1			0.000	J.555.	0.000
SUBSCRIBER PAIR GAIN	758C.D758C,F758C	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
POLES	1C, 811C	0.0671	0.0725	0.0325	0.1721	0.0279	0.0113	0.0000	0.0392	0.2113
AERIAL CA - METAL	22C, 12C, 802C	0.0917	0.0797	0.0338	0.2052	0.0571	0.0113	0.0000	0.0684	0.2736
AERIAL CA - FIBER	822C, 812C, 882C, 982C,D22C,	0.0667	0.0784	0.0347	0.1798	0.0139	0.0113	0.000	0.0252	0.2050
ALICE ON TIDEN	F22C,T22C,D12C,F12C,T12C	0.000		0.02	0	-10100		0.000	J.1415	0.2000
UNGROUND CA - METAL	5C, 805C	0.1036	0.0813	0.0342	0.2191	0.0291	0.0113	0.0000	0.0404	0.2595
UNGROUND CA - FIBER	85C,885C,985C,D5C,F5C,T5C	0.0626	0.0800	0.0358	0.1784	0.0135	0.0113	0,0000	0.0248	0.2032
BURIED CA - METAL	45C, 846C	0.0876	0.0809	0.0354	0.2039	0.0543	0.0113	0.0000	0.0656	0.2695
BURIED CA - FIBER	845C,856C,956C,D45C,	0.0585	0.0816	0.0367	0.1768	0.0144	0.0113	0,0000	0.0257	0.2025
DOI.112.001	F45C,T45C	0.0000	.==	0.00	3,,,,,					7.2020
SUBMARINE CA-METAL	6C, 806C	0.0860	0.0814	0.0366	0.2040	0.0150	0.0113	0.0000	0.0263	0,2303
SUBMARINE CA-FIBER	86C,886C,D6C,F6C,T6C	0.0860	0.0814	0.0355	0.2029	0.0150	0.0113	0.0000	0.0263	0.2292
INTRBLD NTWK-METAL	52C	0.0661	0.0785	0.0340	0.1786	0.0320	0.0113	0.0000	0.0433	0.2219
INTRBLD NTWK-FIBER	852C,D52C,F52C,T52C	0,0661	0.0785	0.0340	0.1786	0.0320	0.0113	0.000.0	0.0433	0.2219
HILL THE COURT OF		0.0001		3,45 15	2,1100	3.0020	0.01.0	3,000	0.0405	0.22,15
CONDUIT SYSTEMS	4C, 84C, 94C	0.0242	0.0877	0.0401	0.1520	0.0028	0.0113	0.0000	0.0141	0.1661

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DIRECTORY ASSISTANCE ACCESS SERVICE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 6

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DIRECTORY ASSISTANCE ACCESS SERVICE

COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING LRIC AND TSLRIC
SECTION 5	SPECIFIC STUDY ASSUMPTIONS
SECTION 6	FACTORS AND LOADINGS

TAB A

SECTION A

DIRECTORY ASSISTANCE ACCESS SERVICE PROPRIETARY RATIONALE

The Directory Assistance Access Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Directory Assistance Access Service Cost Study is considered proprietary.

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DIRECTORY ASSISTANCE ACCESS SERVICE

INTRODUCTION AND OVERVIEW

This cost study develops the Long Run Incremental Cost (LRIC) and the Total Service Long Run Incremental Cost (TSLRIC) per call for Directory Assistance Service Calls. LRIC is the volume sensitive incremental unit cost. TSLRIC is the volume sensitive and volume insensitive incremental unit cost, the average incremental unit cost. These costs are comprised of: (1) Operator Labor; (2) the operators' position hardware, software, and dedicated circuits associated with the Operator Service Center (OSC); (3) the software providing Directory Assistance functionality in the Operator Service System (OSS); and, (4) the Directory Assistance Database System. Operator labor, positions, circuits to the positions and the operations databases are sized as a function of demand and are, accordingly, volume sensitive. The DA software in the OSS and the administrative database are insensitive to demand.

From a cost methodology perspective, the difference in intraLATA DA Service and DA Access Service is that transport is a separate rate element for the latter. This study develops the cost of all components, with the exception of transport, using the total demand for Directory Assistance. The Directory Assistance Transport costs are developed with the Switched Access Studies.

Directory Assistance Access Service is labor intensive. The study is a capacity cost study in that the operator labor varies directly with the number of calls and the operators' tours can be rescheduled on a relatively short interval. The primary cost, the operator labor expense, is continuously adjusted to meet demand.

The Operator Service System is a software package that allows a tandem switch to provide directory assistance functionality. Its essential function is to act as an automated call distributor and direct a DA call to the active operator position that has been idle the longest.

The operator position is a workstation that ties the operator to both the customer and the DA Database.

The DA Database System and associated equipment holds the customer records (name, telephone number and address). An administrative database monitors the pair of operations databases and downloads listing changes to both.

The study is based on directly assigned labor costs, current vendor prices for hardware and software, and incremental annual cost factors.

DIRECTORY ASSISTANCE ACCESS SERVICE

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Directory Assistance Access Service.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. Costs for a service may include volume sensitive and/or volume insensitive costs. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs may also be non-investment related, such as operator labor expense and feature specific software. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for Directory Assistance is to determine the forward-looking network architecture. Prices for the equipment are defined. Next, account specific Telephone Plant Indices are applied, when necessary, to trend investments and non-investment related expenses to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor. The deployment probabilities, capacity, spare stock and utilization of the equipment are also considered.

Appropriate loadings for land, building and miscellaneous common equipment and power are then applied to the electronic equipment. Support structure loadings are applied for poles and conduit to the aerial and underground fiber investments respectively.

Next, 1995 level Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each Uniform System of Account Field Reporting Code) are applied to levelized investments by account code, yielding an annual cost per account code. Both the investment and non-investment related annual costs are summed and then divided by annual demand to arrive at a unit cost for each component.

100

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DIRECTORY ASSISTANCE ACCESS SERVICE SUMMARY OF RESULTS

This section contains a cost summary for the volume sensitive Long Run Incremental Cost and Total Service Long Run Incremental Cost per Directory Assistance call.

COST PER CALL

DIRECTORY ASSISTANCE SERVICE CALLS

A

LRIC, Volume Sensitive Unit Cost

TSLRIC, Average Incremental Unit Cost

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DIRECTORY ASSISTANCE ACCESS SERVICE

COST DEVELOPMENT

This section defines the cost development for Directory Assistance Access Service.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; material prices are obtained; utilization and loading factors are applied. Annual cost factors are applied to convert the investment to cost. Operator labor expense is directly identified.

Workpaper 1

Provides the summary of LRIC and TSLRIC costs per Directory Assistance Service Calls.

Workpaper 2

Cost components on a per minute basis are converted to a per call basis using the Actual Work Time (AWT), the average call processing time in seconds.

Workpaper 3

The operator cost per minute is developed using the directly assigned labor cost per productive hour. The cost per hour is divided by 60 minutes and then adjusted by the ratio of productive hours to call processing hours.

Workpaper 4

The Operator Service Center (OSC) software cost per minute is derived by multiplying the equivalent annual cost per position times the number of positions and dividing it by the demand in minutes for 1995.

The hardware investment per position was loaded for incremental common equipment, power, land, and building investment. These investments were multiplied by the number of positions and their corresponding annual cost factors to calculate the associated annual cost. This annual cost was divided by the annual minutes for 1995 to develop the hardware cost per minute. The circuit and mileage quantities for the message and data circuits from the positions were multiplied by their fixed and mileage sensitive unit investments, and associated annual cost factors to calculate the annual cost. The mileage for each route was calculated from the vertical and horizontal coordinates of the Operator Service Center locations and the host Operator Service System. As with the hardware, this annual cost was divided by the 1995 annual minutes to produce the cost per minute.

The total cost per minute for the Operator Service Center (OSC) is the sum of the software, hardware and circuit cost per minute.

Workpaper 5

The equivalent annual cost for the DA software in the Operator Service Systems is divided by the 1995 calls to develop the OSS cost per call. The expense for this software is volume insensitive.

Workpaper 6

The individual hardware and software components for the Regional Directory Assistance DataBase System are developed.

Cost for the volume insensitive Administrative Database is developed separately from the Operations Databases and the 1.544 MBit per second links from the Operator Service Centers to the Operations Databases.

The Hardware investment is loaded for land, building, and miscellaneous power and common equipment. These investments are multiplied by their associated annual cost factors to calculate the annual cost.

The software expenses are multiplied by an amortization factor to calculate on equivalent annual cost.

The number of links and the mileages between the OSC and the Operations Database Locations are multiplied by fundamental unit investments and associated annual cost factors to calculate the annual cost.

Volume sensitive and volume insensitive annual costs are divided by the system's engineered capacity to develop the costs per call.

The following Workpapers detail this cost development.

DIRECTORY ASSISTANCE ACCESS SERVICE SUMMARY OF COSTS

FLORIDA WORKPAPER 1 PAGE 1 OF 1 07/15/96

[LINE	DESCRIPTION	SOURCE	AMOUNT
	4	DIRECTORY ASSISTANCE SERVICE CALL		A
	1. 2.	OPERATOR LABOR		22
\$	3.	VOLUME SENSITIVE	WP2.LN5	
3	4.	VOLUME INSENSITIVE	··· Gjarro	
	5.			
	6.	OPERATOR SERVICE CENTER		
	7.	VOLUME SENSITIVE	WP2,LN9	
	8.	VOLUME INSENSITIVE		
	9.			
	10.	OPERATOR SERVICE SYSTEM	•	
	11.	VOLUME SENSITIVE		
	12.	VOLUME INSENSITIVE	WP2,LN12	
	13.			
	14.	DA DATABASE		
16	15.	VOLUME SENSITIVE	WP2,LN16	
.φ	16.	VOLUME INSENSITIVE		
	17.	ODOGO DEGENTO YAY (ODT) FACTOR		1.0152
	18.	GROSS RECEIPTS TAX (GRT) FACTOR		1.0152
20	19. 20.	LRIC. VOLUME SENSITIVE UNIT COST PER CAI	LL WIGRT (LN3+LN7+LN11+LN15)xLN18	8
	21.	LUID, VOLOME SENSITIE DIVINGUITEN GA	LE MORE GEOVERNATION CONTRACTOR	8 6
	22.	TOTAL VOLUME INSENSITIVE UNIT COST PER	CALL W/GRT (LN4+LN8+LN12+LN16)xLN18	1
	23.			
24	24.	TSLRIC, AVERAGE INCREMENTAL UNIT COST	PER CALL W/GRT LN20+LN22	
- 1				

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LINE	DESCRIPTION	SOURCE
1. 2.	ACTUAL WORK TIME (AWT), SECONDS	- 1995
3. 4.	OPERATOR LABOR COST PER MINUTE	WP3,LN5
5. 6.	COST PER DA CALL - VOLUME SENS	SITIVE (LN1/60)xLN4
7. 8.	OSC COST PER MINUTE	WP4,LN45
9. 10. 11.	COST PER DA CALL - VOLUME SENS	SITIVE (LN1/60)xLN8
12. 13.	COST PER DA CALL - VOLUME INSE	NSITIVE WP5,LN13
14. 15.	DA DATABASE COST PER DA CALL - VOLUME SENS	
16.	COST PER DA CALL - VOLUME INSE	nsitive WP6,LN49

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DIRECTORY ASSISTANCE ACCESS SERVICE OPERATOR LABOR

FLORIDA WORKPAPER 3 PAGE 1 OF 1 07/15/96

LINE	DESCRIPTION	SOURCE	AMOUNT
			A
1. 2.	OPERATOR LABOR PER PRODUCTIVE HOUR - 1	996-1998	\$26.35
3.	RATIO PRODUCTIVE TO CALL PROCESSING HOUR	RS	
4. 5.	OPERATOR COST PER MINUTE - VOLUME SENS	ITIVE (LN1/60) x LN3	

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- TATE	DESCRIPTION	SOURCE			AMOUNT
INE	DESCRIPTION				
1.	POSITIONS, 1995				
2.	DEMAND - MINUTES, 1995				
3.					
4,	SOFTWARE (1996-1998)				
5.	WORKSTATION SOFTWARE, PER POSITION				
6.	OPEN POSITION PROTOCOL, PER POSITION				0.285
7.	AMORTIZATION FACTOR	44 MA. I MED 41 ME	LI NOVA NO		0.263
B.	SOFTWARE COST PER MINUTE	((LN1xLN7) x (LN	PLNOJYLNZ		
9.					
I O .	HARDWARE (1996-1998)				
1.	INVESTMENT PER POSITION				1.096
12.	MCE&P FACTOR				0.003
3.	LAND FACTOR				0.040
4.	BUILDING FACTOR			•	0.040
5.	ANNUAL COST FACTOR - DIGITAL SWITCH				0.240
6.	ANNUAL COST FACTOR - LAND				0.174
7.	ANNUAL COST FACTOR - BUILDING	/I NIAWA NIAAWI NIA	31\w \$14E		V. 184
8.	ANNUAL COST - POSITION (377C)	(LN1x(LN11xLN12			
9.	ANNUAL COST - LAND (20C)	(LN1x(LN11xLN12			
0.	ANNUAL COST - BUILDING (10C)	(LN1x(LN11xLN1)			-
1.	TOTAL ANNUAL COST	LN18+LN19+LN2	U		
2.	HARDWARE COST PER MINUTE	LN21/LN2			
3.	COLOR AND DATA OLDGUITO (4000 4000)				
4.	VOICE AND DATA CIRCUITS (1996-1998)	CIRCUITS	UNIT	ANNUAL	ANNUAL
5.	ODCULT TERMINATION (EDG)	MILES	INVESTMENT	. COST FACTOR	COST
6.	CIRCUIT TERMINATION (FRC)	MILES	HAFRIMENT	COST PACTOR	<u> </u>
7.	CIDCUIT (257C)	1,022	\$116.80	0.2268	\$27,07
8. 9.	CIRCUIT (357C)	1,022	\$0.37	0.22 00 0.17 4 5	\$21,01
	LAND (20C)	1,022	\$5.04	0.1743	\$99
0.	BUILDING (10C)	1,022	\$5.04	0,1922	39:
1.	CIDCUIT IN EACE (EDC)				
2. 3.	CIRCUIT MILEAGE (FRC)	90,103	\$0.11	0.2050	\$2.03
	AERIAL (822C)		\$0.11 \$0.32	0.2025	* . *
4.	BURIED (845C)	90,103			\$5,83
5.	UNDERGROUND (85C)	90,103	\$0.14	0.2032	\$2,56
6.	POLE (811C)	90,103	\$0.02	0.2113	\$30
-	CONDUIT (84C)	90,103	\$0.09	0.1661	\$1,34
	CIRCUIT (357C)	90,103	\$1.45	0.2268	\$29,6
18.	DUIL DING (400)	90,103	\$0.06	0.1922	\$1,0
38. 39.	BUILDING (10C)	· •			
38. 39. 40.	• • • • • • • • • • • • • • • • • • • •	CHILL NO. 1 NO.			270 M
38. 39. 40. 41.	BUILDING (10C) TOTAL ANNUAL COST	SUM LN28LN39			\$70,96
37. 38. 39. 40. 41.	TOTAL ANNUAL COST				\$70,9 6
18, 19, 10, 11,	• • • • • • • • • • • • • • • • • • • •	SUM LN28LN39			\$70,90

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DIRECTORY ASSISTANCE ACCESS SERVICE OPERATOR SERVICE SYSTEM (OSS)

FLORIDA WORKPAPER 5 PAGE 1 OF 1 07/15/96

LINE	DESCRIPTION	SOURCE	AMOUNT
1. 2. 3.	DEMAND - 1995 DIRECTORY ASSISTANCE CALLS		_A
4.	DA		
5.	SOFTWARE EXPENSE PER TANDEM (1996-1998)		
6.			
7.	TANDEM SWITCHES		
8.			
9.	DA SOFTWARE EXPENSE	LN5 x LN7	
10.			
11.	AMORTIZATION FACTOR		0.2857
12. 13.	COST PER DA CALL - VOLUME INSENSITIVE	(LN9xLN11)/LN2	

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DIRECTORY ASSISTANCE ACCESS SERVICE REGIONAL DA DATABASE SYSTEM

FLORIDA WORKPAPER 6 PAGE 1 OF 1 07/15/96



1.	ADMINISTRATIVE DATABASE (1996-1998)				
2.	HARDWARE INVESTMENT - VOLUME INSENSITIVE				
3.	SOFTWARE EXPENSE - VOLUME INSENSITIVE				
Ä	OPERATIONS DATABASES (1996-1998)				
5	HARDWARE INVESTMENT - VOLUME SENSITIVE				
6.	SOFTWARE EXPENSE - VOLUME SENSITIVE				
					0.0023
7.					0.0382
8.	BUILDING FACTOR	,			1.0990
9.	MISCELLANEOUS POWER & COMMON EQUIP. FACTOR	•			0.2527
	ANNUAL COST FACTOR (377C)				
	ANNUAL COST FACTOR (20C)				0.1745
12.	ANNUAL COST FACTOR (10C)				0.1893
13.	AMORTIZATION FACTOR				0.2857
14.	ANNUAL COST				
15.	ADMINISTRATIVE DATABASE				_
16.	HARDWARE	LN2xLN9xLN10	0		7
17.	SOFTWARE	LN3xLN13	*		
18.	LAND	LN2xLN9xLN7	xLN11		
19.	BUILDING	LN2xLN9xLN8			
20.	OPERATIONS DATABASE	D 12×0114×0110			
21.	HARDWARE	LN5xLN9xLN10	n		
		LN6xLN13	•		
22.	SOFTWARE		NI44		
23.	LAND	LN5xLN9xLN7			
24.	BUILDING	LN5xLN9xLN8	XLN12		
25.					
	1.544 MB/S LINKS, ADMIN AND				
	OSC TO DATABASE (1996-1998)	CIRCUITS/	UNIT	ANNUAL	ANNUAL
28.	•	MILES	INVESTMENT	COST FACTOR	COST
29.	CIRCUIT TERMINATION (FRC)				
30.	CIRCUIT (357C)	73	\$2,784.60	0.2292	\$46,591
31.	LAND (20C)	73	\$6.80	0.1745	\$87
32.	BUILDING (10C)	73	\$113.60	0.1893	\$1,570
33.	• •		•		
34.	CIRCUIT MILEAGE (FRC)				
35.	AERIAL (822C)	24,022	\$2.40	0.2021	\$11.652
36.	BURIED (845C)	24,022	\$7.80	0.1989	\$37,268
37.	UNDERGROUND (85C)	24.022	\$3.00	0.2017	\$14,536
38.	POLE (811C)				• • • • • • •
39.		24,022	\$0.60	0.2137	\$3,080
	CONDUIT (84C)	24,022	\$1.60	0.1658	\$6,373
40.	CIRCUIT (357C)	24,022	\$29.00	0.2292	\$159,669
41.	BUILDING (10C)	24,022	\$1.20	0.1893	\$5,457
42.					
43.	TOTAL ANNUAL COST				\$ 286,282
44.	•				
45.	ENGINEERED CAPACITY, CALLS				1,225,000.000
46.					
47.	COST PER CALL				
48.	VOLUME SENSITIVE	(LN21+LN22+L	N23+LN24+LN4	3)/LN45	
49.	VOLUME INSENSITIVE		N18+LN19\/LN4		
70.		(•	

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DIRECTORY ASSISTANCE ACCESS SERVICE

SPECIFIC STUDY ASSUMPTIONS

The cost study for the Directory Assistance Access Service is based on direct incremental costing techniques that are in accordance with accepted economic theory, plus specific Network deployment strategies, first choice provisioning guidelines, and equipment purchasing information.

Cost study assumptions are as follows:

Software expenses were projected to the 1996-1998 study period using the Telephone Plant Indexes and Labor Inflation Rates of its associated (377C) investment.

Software expenses such as Right-To-Use fees are amortized over five years to develop an equivalent annual cost.

FLORIDA

DIRECTORY ASSISTANCE ACCESS SERVICE

FACTORS AND LOADINGS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the Directory Assistance Access Service cost study.

1996 - 1998 Directly Assigned I Directory Assistance (DA)	•)
Job Function Code 2940	•	\$26.01
Operator Labor Inflation Rate From 1995		1.0618
1101111773		1.0010
Hardware Inflation Rate 377C (Florida)	1.012
Ratio Productive to Call Process	ing Hours (Regional)	1.30
Amortization Factor (5 Years @	13.2%)	0.2857
Miscellaneous Common Equipm	nent	
and Power Factor	377C (Florida)	1.0962
Miscellaneous Common Equipm	nent	
and Power Factor	377C (Regional)	1.0990
Gross Receipts Tax Factor (Flor	ida)	1.0152
Land Loading	20C (Florida)	0.0030
Land Loading	20C (Regional)	0.0023
Building Loading	10C (Florida)	0.0404
Building Loading	10C (Regional)	0.0382
Annual Cost Factors (Florida &	Regional see following sprea	dsheets)

Image Table: ACFCURRENT

1995 FLORIDA ACCOUNT AVERAGE ANNUAL COST FACTORS INCREMENTAL

* FOR USE IN SERVICE COST STUDIES ONLY

	field_code	depreciation &	acfc_com b	acfc_ine tex	q ceb_exb	acfc_mice	acfc_adval tax	admin_dir g	acic_oper_exp h	tot_combined
			13.2%		(a+b+c)				(e+f+g)	(d+h)
LAND	20C	0.0000	0.1118	0.0514	0.1632	0.0000	0.0113	0.0000	0.0113	0.1745
BUILDINGS	100, 1100, 8100	0.0302	0.0986	0.0452	0.1740	0.0069	0.0113	0.0000	0.0182	0,1922
ANALOG ELEC SWITCH	77C, 877C, 977C	0.2629	0.0680	0.0306	0.3615	0.0305	0.0113	0.0000	0.0182	0.1922
DIGITAL ELEC SWITCH	377C, 887C	0.1134	0.0851	0.0302	0.2087	0.0282	0.0113	0.0000	0.0395	0.2482
OPERATOR SYSTEMS	117C,417C	0.1063	0.0751	0.0404	0.2238	0.0040	0.0113	0.0000	0.0153	0.2391
RADIO	167C, 67C, 867C, 967C	0.1434	0.0750	0.0348	0.2532	0.0763	0.0113	0.0000	0.0876	0.2391
DIGTL CIRC-DDS	157C	0.1810	0.0675	0.0305	0.2790	0.0073	0.0113	0.0000	0.0186	0.2976
DIGTL CIRC-PAIR GAIN	257C.D257C.F257C	0.1134	0.0636	0.0288	0.2058	0.0075	0.0113	0.0000	0.0202	0.2260
DIGTL CIRC-OTHER	357C,T357C,F357C,857C,957C	0.1134	0.0638	0.0297	0.2089	0.0088	0.0113	0.0000	0.0199	0.2268
ANALOG CIRC-PAIR GAIN	457C	0.1689	0.0636	0.0248	0.2573	0.0000	0.0113	0.0000	0.0113	0.2686
ANALOG CIRC-OTHER	57C	0.1689	0.0630	0.0282	0.2610	0.0206	0.0113	0.0000	0.0319	0.2929
PBX	158C, 258C	0.2296	0.0771	0.0346	0.3413	0.0145	0.0113	0.0000	0.0258	0.3671
PUBLIC-COIN	198C, 188C	0.1483	0.0763	0.0348	0.2594	0.2084	0.0113	0.0000	0.2197	0.4791
PUBLIC-COINLESS	298C, 288C	0.1483	0.0763	0.0348	0.2594	0.1248	0.0113	0.0000	0.1361	0.3955
PUBLIC-OTHER	998C, 988C	0.1483	0.0763	0.0348	0.2594	0,1062	0.0113	0.0000	0.1175	0.3769
OTHER TERMINAL EQPT	358C,D758C,858C,558C, 828C,928C,F958C	0.1733	0.0612	0.0359	0.2904	0.0548	0.0113	0.0000	0.0661	0,3565
- SUBSCRIBER PAIR GAIN	758C,D758C,F758C	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
POLES	1C, 811C	0.0671	0.0725	0.0325	0.1721	0.0279	0.0113	0.0000	0.0392	0.2113
AERIAL CA - METAL	22C, 12C, 802C	0.0917	0.0797	0.0338	0.2052	0.0571	0.0113	0.0000	0.0684	0.2736
AERIAL CA - FIBER	822C, 812C, 882C, 982C, D22C, F22C, T22C, D12C, F12C, T12C	0.0667	0.0784	0.0347	0.1796	0.0139	0.0113	0.0000	0.0252	0.2050
UNGROUND CA - METAL	5C, 805C	0.1036	0.0813	0.0342	0.2191	0.0291	0.0113	0.0000	0.0404	0.2595
UNGROUND CA - FIBER	85C,885C,985C,D5C,F5C,T5C	0.0626	0.0800	0.0358	0.1784	0.0135	0.0113	0.0000	0.0248	0.2032
BURIED CA - METAL	45C, 846C	0.0876	0.0800	0.0354	0.2039	0.0543	0.0113	0.0000	0.0656	0.2695
BURIED CA - FIBER	845C,856C,956C,D45C, F45C,T45C	0.0585	0.0816	0.0367	0.1768	0.0144	0.0113	0,0000	0.0257	0.2025
SUBMARINE CA-METAL	6C, 806C	0.0860	0.0814	0.0366	0.2040	0.0150	0.0113	0.0000	0.0263	0.2303
SUBMARINE CA-FIBER	86C,886C,D6C,F6C,T6C	0.0860	0.0814	0.0355	0.2029	0.0150	0,0113	0.0000	0,0263	0.2292
INTRBLD NTWK-METAL	52C	0.0661	0.0785	0.0340	0.1786	0.0320	0.0113	0,0000	0.0433	0.2219
INTRBLD NTWK-FIBER	852C,D52C,F52C,T52C	0.0661	0.0785	0.0340	0.1786	0.0320	0.0113	0.0000	0.0433	0.2219
CONDUIT SYSTEMS	4C, 84C, 94C	0.0242	0.0877	0.0401	0.1520	0.0028	0.0113	0.0000	0.0141	0.1661

Image Table: ACFCURRENT

1995 BELLSOUTH TELECOMMUNICATIONS ACCOUNT AVERAGE ANNUAL COST FACTORS . INCREMENTAL

* FOR USE IN SERVICE COST STUDIES ONLY

Rev 10-May-96

•	· field_code	depreciation	acfo_com b	acfo_ine tax	cap_exp d	acfc_mtce	acfc_adval tax	admin_dir:	acfc_oper_exp h	tot_combined
		•	13.2%		(a+b+c)				(e+f+g)	(d+h)
LAND	20C	0.0000	0.1118	0.0514	0.1632	0.0000	0.0113	0,000	0.0113	0.1745
BUILDINGS	100, 1100, 8100	0.0302	0.0986	0.0452	0.1740	0.0040	0.0113	0.0000	0.0153	0.1745
ANALOG ELEC SWITCH	77C, 877C, 977C	0.2629	0.0680	0.0306	0.1740	0.0210	0.0113	0.0000	0.0153	0.3938
DIGITAL ELEC SWITCH	377C, 887C	0.1134	0.0851	0.0302	0.2087	0.0210	0.0113	0.0000	0.0323	0.2527
OPERATOR SYSTEMS	117C.417C	0.1063	0.0751	0.0404	0.2238	0.0067	0.0113	0.0000	0.0180	0.2418
RADIO	167C, 67C, 867C, 967C	0.1434	0.0750	0.0348	0.2532	0.0142	0.0113	0.0000	0.0255	0.2787
DIGTL CIRC-DOS	157C	0.1810	0.0675	0.0305	0.2790	0.0145	0.0113	0,0000	0.0258	0.3048
DIGTL CIRC-PAIR GAIN	257C.D257C.F257C	0,1134	0.0636	0.0288	0.2058	0.0104	0.0113	0,0000	0.0217	0.2275
DIGTL CIRC-OTHER	357C.T357C.F357C.857C.957C	0.1134	0.0638	0.0297	0.2069	0.0104	0.0113	0.0000	0.0223	0.2292
ANALOG CIRC-PAIR GAIN	457C	0.1689	0.0636	0.0248	0.2573	0.0033	0.0113	0.0000	0.0146	0.2719
ANALOG CIRC-OTHER	57C	0.1689	0.0639	0.0282	0.2610	0.0140	0.0113	0.0000	0.0253	0.2863
PBX	158C, 258C	0.2296	0.0771	0.0346	0.3413	0.0368	0.0113	0.0000	0.0481	0.3894
PUBLIC-COIN	196C, 188C	0.1483	0.0763	0.0348	0.2594	0.1972	0.0113	0.0000	0.2085	0,4679
PUBLIC-COINLESS	296C, 268C	0.1483	0.0763	0.0348	0.2594	0.1076	0.0113	0.0000	0.1189	0.3783
PUBLIC-OTHER	998C, 968C	0.1483	0.0763	0.0348	0.2594	0.0582	0.0113	0,0000	0.0695	0.3289
OTHER TERMINAL EQPT	358C,D758C,858C,558C,	0.1733	0.0812	0.0359	0.2904	0.0585	0.0113	0.0000	0.0698	0.3602
	828C,928C,F958C									
SUBSCRIBER PAIR GAIN	758C,D758C,F758C	0,0000	0,0000	0,0000	0.0000	0,0000	0.0000	0.0000	0,0000	0.0000
POLES	1C, 811C	0.0671	0.0725	0.0325	0.1721	0.0303	0.0113	0,0000	0.0416	0.2137
AERIAL CA - METAL	22C, 12C, 802C	0.0917	0.0797	0,0338	0.2052	0.0413	0.0113	0.0000	0.0526	0.2578
AERIAL CA - FIBER	822C, 812C, 862C, 982C, D22C, F22C, T22C, D12C, F12C, T12C	0.0667	0,0784	0.0347	0,1798	0.0110	0.0113	0.0000	0.0223	0.2021
UNGROUND CA - METAL	5C, 805C	0,1036	0.0813	0.0342	0.2191	0.0255	0.0113	0,0000	0.0368	0.2559
UNGROUND CA - FIBER	85C,885C,985C,D5C,F5C,T5C	0.0626	0.0800	0.0358	0.1784	0.0120	0.0113	0,0000	0.0233	0.2017
BURIED CA - METAL	45C, 846C	0,0676	0,0809	0,0354	0.2039	0.0417	0.0113	0,0000	0.0530	0.2569
BURIED CA - FIBER	845C,856C,956C,D45C, F45C,T45C	0,0585	0,0616	0,0367	0.1768	0.0108	0.0113	0.0000	0.0221	0.1989
SUBMARINE CA-METAL	6C, 806C	0.0860	0.0814	0.0366	0.2040	0.0106	0.0113	0.0000	0.0219	0.2259
SUBMARINE CA-FIBER	86C,886C,D6C,F6C,T6C	0.0860	0.0814	0.0355	0.2029	0.0108	0.0113	0.0000	0.0219	0.2248
INTRBLD NTWK-METAL	52C	0.0661	0.0785	0.0340	0.1786	0.0265	0.0113	0.0000	0,0378	0.2164
INTRBLD NTWK-FIBER	852C,D52C,F52C,T52C	0.0661	0.0785	0.0340	0.1788	0.0265	0.0113	0.0000	0.0378	0,2164
CONDUIT SYSTEMS	4C, 84C, 94C	0.0242	0.0677	0.0401	0.1520	0.0025	0.0113	0.0000	0.0138	0.1658

FLORIDA



DIRECTORY ASSISTANCE DATABASE SERVICE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 6

FLORIDA

DIRECTORY ASSISTANCE DATABASE SERVICE (DADS) COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING LRIC
SECTION 5	SPECIFIC STUDY ASSUMPTIONS
SECTION 6	FACTORS AND LOADINGS

TAB A

11:

SECTION A

DIRECTORY ASSISTANCE DATABASE SERVICE (DADS) PROPRIETARY RATIONALE

The Directory Assistance Database Service (DADS) contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth. For these reasons, the Directory Assistance Database Service (DADS) Cost Study is considered proprietary.

DIRECTORY ASSISTANCE DATABASE SERVICE (DADS) INTRODUCTION AND OVERVIEW

This Long Run Incremental Cost Study is being provided to support Directory Assistance Database Service (DADS).

This study develops the incremental cost to provide an initial directory listing file and monthly updates on a per listing basis. It also develops the recurring incremental cost for administration and operation of the service. These costs are volume sensitive, there are no volume insensitive costs associated with the service.

The Long Run Incremental Recurring Costs presented in this study are directly assigned, incremental and levelized so as to be appropriate for the 1996-1998 study period. These Long Run Incremental Costs are developed by using 1995 directly assigned labor rates.

Directory Assistance Database Service is provided on a Regional basis and the study is, accordingly, a Regional Study.

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DIRECTORY ASSISTANCE DATABASE SERVICE (DADS) DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Directory Assistance Database Service (DADS).

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. Costs for a service may include volume sensitive and/or volume insensitive costs. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. There are no nonrecurring costs associated with Directory Assistance Database Service. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The recurring cost associated with Directory Assistance Database Service consists of computer Central Processing Utilization (CPU) time for file extracts and updates, the cost for magnetic tapes and shipping, and labor required to administer and operate the service.

The estimates for both the CPU time and the labor were provided by subject matter experts familiar with Directory Assistance Database Service.

FLORIDA

DIRECTORY ASSISTANCE DATABASE SERVICE (DADS) SUMMARY OF RESULTS

This section contains a cost summary for the Long Run Incremental Cost for Directory Assistance Database Service.

DADS, Cost per Listing LRIC, Volume Sensitive Unit Cost per Listing

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11

DADS, Monthly Recurring Cost LRIC, Volume Sensitive Monthly Cost

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DISCLOSED TO UNAUTHORIZED PERSONS. IT IS MEANT SOLELY FOR USE BY
AUTHORIZED EMPLOYEES OF THE BELLSOUTH COMPANIES.

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DIRECTORY ASSISTANCE DATABASE SERVICE (DADS)

COST DEVELOPMENT - RECURRING

As outlined in Section 2, the cost of Directory Assistance Database Service is comprised of computer CPU, magnetic tape material and shipping expense, and labor involved with administration and operations.

Workpaper 1 summarizes the volume sensitive, Long Run Incremental Unit Cost per Listing and the Long Run Incremental Cost per Month.

Workpaper 2 develops the per listing and monthly costs.

The per listing cost is based on the average listings in a Number Plan Area, the estimated CPU time for the initial extract and eleven monthly updates, and the tape material and shipping expense.

The result is the cost per average listing for a file extract and eleven monthly updates.

The monthly recurring cost is developed by dividing the forecasted number of customers by the monthly labor cost required for administration, customer inquiries and auditing. An individual customer requesting listings in two different state jurisdictions is shown as two customers.

There are no volume insensitive costs associated with Directory Assistance Database Service.

The following workpapers detail this development.

1.	DIRECTORY ASSISTANCE		FLORIDA
2.	DATABASE SERVICE (DADS)		WORKPAPER 1
3.			7/23/96
4.	SUMMARY OF COST PER LISTING		
5.	AND MONTHLY RECURRING COST		
6.			
7.			
8.			
9.	COST PER LISTING		·
10.	LRIC, VOLUME SENSITIVE UNIT COST	WORKPAPER 2 LN18	
11.			
12.			
13.	MONTHLY RECURRING COST		_
14.	LRIC, VOLUME SENSITIVE UNIT COST	WORKPAPER 2 LN25	

				A				\mathcal{B} .
1.	DIRECTORY ASSISTANCE					FLORID/	\	
2.	DATABASE SERVICE (DADS)					WORKP		R 2
3.					-,	7/23/96		
4.	DEVELOPMENT OF COST PER	LISTING		<u></u>				
5.	AND MONTHLY RECURRING C	OST						
6.			<u></u>	<u> </u>				
7.								
8.	COST PER LISTING	<u> </u>						
9.	INITIAL FILE				£20.44		\$	
10.	CPU PER NPA				\$29.44		\$	68.90
11.	MAG TAPE (2) AND SHIPP	ING					*	00.90
12.	FILE UPDATE			,	\$29.44	 		
13.	ANNUAL CPU PER NPA	DINC			423.77		Š	429.84
14.	MAG TAPE (12) AND SHIP	PING		LN10+LN1	1+I N13+I	N14	3	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
15.	ANNUAL COST GROSS RECEIPTS TAX FA	ACTOR	<u> </u>	E. 410 / E. 41	1	1	Ť	1.0152
16.	LISTINGS PER NPA	TO TOR						850,250
17.	COST PER LISTING, VOLU	IME SENSI	TIVE	(LN15 x LN	16)/LN17			·
18. 19.	COST FER LISTING, VOL	Jine Gerra.	; :					
20.	MONTHLY RECURRING COST							
21.	ADMINISTRATION AND O	PERATIONS	<u>. </u>				1	
22.	PER MONTH			•	\$ 46.35]	
23.	NUMBER OF CUSTOMER	s -		1			I	
24.	MONTHLY RECURRING C		T				I	
25.	VOLUME SENSITIVE	T		(LN16 x L1	122)/LN23]	

1 1:

DIRECTORY ASSISTANCE DATABASE SERVICE (DADS)

SPECIFIC STUDY ASSUMPTIONS

The cost study for Directory Assistance Database Service (DADS) is based on direct incremental costing techniques that are in accordance with accepted economic theory.

Cost study assumptions are as follows:

7 Number of Customers
Average Listings per Number Plan Area

850,250

FLORIDA

DIRECTORY ASSISTANCE DATABASE SERVICE (DADS)

FACTORS AND LOADINGS

Following are the labor rates and other factors used in the Directory Assistance Database Service cost study.

1996 - 1998 Directly Assigned Labor Cost per Hour (Regional)

Marketing, Payband 58	\$46.35
Fundamental Computer Cost per CPU Hour (Regional)	\$29.44
Gross Receipts Tax Factor (Florida)	1.0152

FLORIDA



DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE

COST STUDY DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING LRIC AND TSLRIC
SECTION 5	COST DEVELOPMENT - NONRECURRING
SECTION 6	SPECIFIC STUDY ASSUMPTIONS
SECTION 7	FACTORS AND LOADINGS

TAB A

SECTION A

DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE PROPRIETARY RATIONALE

The Direct Access to Directory Assistance Study contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the Florida Direct Access to Directory Assistance Service Cost Study is considered proprietary.

DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE INTRODUCTION AND OVERVIEW

This cost study develops the Long Run Incremental Cost (LRIC) and the Total Service Long Run Incremental Cost (TSLRIC) per call for Direct Access to Directory Assistance Service (DADAS). LRIC is the volume sensitive incremental unit cost. TSLRIC is the volume sensitive and volume insensitive incremental unit cost, the average incremental unit cost.

DADAS enables a customer's Operator Service Center to access BellSouth's Directory Assistance Database using its Search Application Software. The customer provides its own switch, operator workstation, audio subsystem (optional) and transport facilities.

The study is a Regional study based on directly assigned labor costs, current vendor prices for hardware and software, and incremental annual cost factors.

DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Direct Access to Directory Assistance Service.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. Costs for a service may include volume sensitive and/or volume insensitive costs. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs may also be non-investment related, such as labor expense and feature specific software. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for DADAS is to determine the forward-looking network architecture. Prices for the equipment are defined. Next, account specific Telephone Plant Indices are applied, when necessary, to trend investments and non-investment related expenses to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor. The deployment probabilities, capacity, spare stock and utilization of the equipment are also considered.

Appropriate loadings for land, building and miscellaneous common equipment and power are then applied to the electronic equipment. Support structure loadings are applied for poles and conduit to the aerial and underground fiber investments respectively.

Next, 1995 level Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each Uniform System of Account Field Reporting Code) are applied to levelized investments by account code, yielding an annual cost per account code. Both the investment and non-investment related annual costs are summed and then divided by annual demand to arrive at a unit cost for each component.

THE DEVELOPMENT OF NONRECURRING COSTS

Nonrecurring costs are "one-time" costs incurred as a result of provisioning, installing, and disconnecting Direct Access to Directory Assistance Service. The first step in developing nonrecurring costs is to determine the cost elements related to the study. These cost elements are then described by all of the individual work functions required to provision the cost element. The work functions can be grouped into two categories - Service Order and Training. The work function times, identified by subject matter experts, are used to describe the flow of work within the various work centers. Installation and provisioning costs are developed by multiplying the work time for each work function by the directly assigned 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. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

FLORIDA

DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE SUMMARY OF RESULTS

This section contains a cost summary for the volume sensitive Long Run Incremental Cost and Total Service Long Run Incremental Cost for DADAS.

DADAS SERVICE CHARGE

TSLRIC, Average Incremental
Cost per Month

DADAS QUERY CHARGE

LRIC, Volume Sensitive Cost
per Query

TSLRIC, Average Incremental Cost
per Query

DADAS SERVICE ESTABLISHMENT CHARGE

Nonrecurring
\$816.81

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DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE COST DEVELOPMENT - RECURRING

This section defines the cost of development for Direct Access to Directory Assistance Service.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; material prices are obtained; utilization and loading factors are applied. Annual cost factors are applied to convert the investment to cost. Labor expense is directly identified.

Workpaper 1

Provides the summary of LRIC and TSLRIC costs for the DADAS Service Charge and Query Charge.

Workpaper 2

Develops the DADS Service Charge. The annual labor expenses for the system administor and the two technical support personnel dedicated to the service are divided by the projected number of customers.

This cost is volume insensitive.

Workpaper 3

The individual hardware and software components for the Regional Directory Assistance DataBase System are developed.

Cost for the volume insensitive Administrative DataBase and the 1.544 Mbit per second links from the Administrative to the Operations Databases are developed separately from the volume sensitive Operations Databases.

The Hardware investment is loaded for land, building, and miscellaneous power and common equipment. These investments are multiplied by their associated annual cost factors to caculate the annual cost.

The software expenses are multiplied by an amortization factor to calculate on equivalent annual cost.

The number of links and the mileage between the Administrative and Operations Databases are multiplied by fundamental unit investments and associated annual cost factors to calculate the annual cost.

These volume sensitive and volume insensitive annual costs are divided by the system's engineered capacity.

The volume insensitive, equivalent annual cost of DADAS application software is divided by the expected annual demand.

The system and software volume sensitive and volume insensitive unit costs are then separately summed.

The following Workpapers detail this cost development.

FLORIDA	FLORIDA
DIRECT ACCESS TO DIRECTORY ASSISTANCE	WORKPAPER 1 PAGE 1 OF 1
SUMMARY OF RECURRING COSTS	7/15/96 A
GROSS RECEIPTS TAX FACTOR	1.0152
DADAS DATABASE SERVICE CHARGE	
VOLUME INSENSITIVE UNIT COST PER MONTH W/GRT	
TSLRIC, AVERAGE INCREMENTAL UNIT COST PER MONTH W/GRT	
DADAS QUERY CHARGE	
VOLUME SENSITIVE UNIT COST PER QUERY W/GRT	
VOLUME INSENSITIVE UNIT COST PER QUERY W/GRT	
TSLRIC, AVERAGE INCREMENTAL UNIT COST PER QUERY W/GRT	
	DIRECT ACCESS TO DIRECTORY ASSISTANCE SUMMARY OF RECURRING COSTS GROSS RECEIPTS TAX FACTOR DADAS DATABASE SERVICE CHARGE VOLUME INSENSITIVE UNIT COST PER MONTH W/GRT TSLRIC, AVERAGE INCREMENTAL UNIT COST PER MONTH W/GRT DADAS QUERY CHARGE VOLUME SENSITIVE UNIT COST PER QUERY W/GRT VOLUME INSENSITIVE UNIT COST PER QUERY W/GRT

1.	FLORIDA		
2.			FLORIDA
3.	DIRECT ACCESS TO DIRECTORY ASSISTANCE		WORKPAPER :
4.	The second secon		PAGE 1 OF 1
5. 6.	DEVELOPMENT OF DADAS DATABASE SERVICE CHARGE		7/15/90
7.			A
8. 9.	DADAS ADMINISTRATION (1-PG4)		
10.	DADAG ADMINIGITACION (1-PG4)		
11.	DADAS TECHNICAL SUPPORT (2-PG1)		
12.			
13.	DADAS CUSTOMERS		
14.			
15.	VOLUME INSENSITIVE MONTHLY COST	(LN9+LN11)/(LN13)/12	

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1. 2. 3. 4. 5. 6.	FLORIDA DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE (DADAS)				FLORIDA WORKPAPER 3 PAGE 1 OF 1 7/15/96
7.	REGIONAL DA DATABASE SYSTEM				
8.					A
9.	ADMINISTRATIVE DATABASE (1996-1998)	•			
	HARDWARE INVESTMENT - VOLUME INSENSITIVE				
	SOFTWARE EXPENSE - VOLUME INSENSITIVE	•			
	OPERATIONS DATABASES (1996-1998)				
	HARDWARE INVESTMENT - VOLUME SENSITIVE				
	SOFTWARE EXPENSE - VOLUME SENSITIVE				
	LAND FACTOR BUILDING FACTOR				.0023
	MISCELLANEOUS POWER & COMMON EQUIP.FACTOR				.0382
	ANNUAL COST FACTOR (377C)				1.0990
	ANNUAL COST FACTOR (20C)				.2527 .1745
	ANNUAL COST FACTOR (10C)				.1745
	AMORTIZATION FACTOR				.2857
22.	ANNUAL COST				
	ADMINISTRATIVE DATABASE				.
24. 25.	HARDWARE	LN10xLN17xLN18			
25. 26.	SOFTWARE LAND	LN11xLN21	J 110A		
27.	BUILDING	LN10xLN17xLN15x LN10xLN17xLN16x			
	OPERATIONS DATABASE	CHIOCHAINCHIO	C1420		
29.	HARDWARE	LN13dLN17xLN18			
30.	SOFTWARE	LN14xLN21			
31.	LAND	LN13xLN17xLN15x	d_N19		
32.	BUILDING	LN13dLN17xLN16x	4.N20		
33.					
34.	1.544 MB/S ADMINISTRATIVE LINKS (1996-1998)	CIRCUITS/	UNIT	ANNUAL	ANNUAL.
35.		MILES	INVESTMENT	COST FACTOR	COST
36. 37.		_	44 54 44		
37. 38.	CIRCUIT (357C) EAND (20C)	8 8	\$2,784.60 \$6.80	0.2292 0.1745	\$5,106
39.	BUILDING (10C)	8	\$6.60 \$113.60	0.1745 0.1893	\$9 \$173
40.	501E51170 (100)	•	#113.00	0,1000	\$172
41.	CIRCUIT MILEAGE (FRC)				
42.	* AERIAL (822C)	2,560	\$2.40	0.2021	\$1,242
43.	BURIED (845C)	2,560	\$7.80	0.1969	\$3,972
44.	UNDERGROUND (85C)	2,560	\$3.00	0.2017	\$1,549
45.	POLE (811C)	2,560	\$0.60	0.2137	\$328
46. 47.	CONDUIT (84C)	2,580	\$1.60	0.1658	\$679
47. 48.	CIRCUIT (357C) BUILDING (10C)	2,560 2,560	\$29.00 \$1.20	0.2292 0.1893	\$17,018
49.	BOILDING (IOC)	2,300	\$1.20	0.1693	\$582
	TOTAL ANNUAL COST - VOLUME INSENSITIVE				\$30,654
51.					1,225,000,000
52.					
	DADAS APPLICATION SOFTWARE				1
	ANNUAL CALLS				i
55. Se	COST PER CALL				
57.	VOLUME SENSITIVE	(LN29+LN30+LN31	AL NOOM NE		
58.	VOLUME INSENSITIVE		3+LN27+LN50)/LN51	+(LN53xLN21)/LN54	

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DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE

COST DEVELOPMENT - NONRECURRING

Nonrecurring costs are one-time costs incurred as a result of the provisioning, installing, disconnecting and completion of orders initiated by a customer request for Direct Access to Directory Assistance Service (DADAS). The Nonrecurring Cost Study is performed to determine the service order, provisioning and disconnect costs associated with DADAS Service Establishment. Calculations for the nonrecurring costs are included in this section.

The first step in developing nonrecurring costs is to determine the cost elements to be studied. Each cost element is then described by all of the individual work functions required to provision the element. An example of a work function is the training of the customer's operators.

The work functions required to provide DADAS Service Establishment can be grouped into two categories. These are:

- 1) Service Order
- 2) Training

The next step in the development of nonrecurring costs is to determine work times for each work function associated with the nonrecurring costs of DADAS Service Establishment. The work times of the various work groups are determined from subject matter expert inputs. Each work time estimate is made by a subject matter expert who thoroughly understands how each activity is done.

A spreadsheet model is used to incorporate the specific work functions and labor rates. In order to arrive at the nonrecurring cost for the element studied, the work times for each work function required are multiplied by the appropriate labor rate.

The basic process by which nonrecurring costs are calculated consists of combining unit work times with hourly costs of each specific service category. These labor times and service order related work times are multiplied by the directly assigned labor rates for the work groups performing the activities. Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as installation costs. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

The following workpaper details the cost development.

1. 2.	FLORIDA		FLORIDA
3. 4.	DIRECT ACCESS TO DIRECTORY ASSISTAN	WORKPAPER 1 PAGE 1 OF 1	
5. 6. 7.	DEVELOPMENT AND SUMMARY OF NONRE	CURRING COST	7/15/96
8. 9.	DADAS SERVICE ESTABLISHMENT		
10.	LABOR COST PER HOUR		
11.	SERVICE ORDER (JFC2300)		\$40.67
12. 13.	TRAINING (PB4)		\$46.35
14.	HOURS		
15.	SERVICE ORDER CONNECT		1.55
16.	SERVICE ORDER DISCONNECT		1.42
17. 18.	TRAINING		15.00
19. 20.	DISCONNECT FACTOR		.8014
21. 22.	GROSS RECEIPTS TAX FACTOR		1.0152
23.	COST		
24.	SERVICE ORDER - CONNECT	LN11xLN15xLN21	\$64.00
25.	SERVICE ORDER - DISCONNECT	LN11xLN16xLN19xLN21	\$46.99
26. 27.	TRAINING	LN12xLN17xLN21	\$705.82
28.	NONRECURRING COST .		
20	DADAS SEDVICE ESTABI ISHMENT	I NOZAL NOSAL NOS	C016 01

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DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE

SPECIFIC STUDY ASSUMPTIONS

The cost study for the Direct Access to Directory Assistance Service is based on direct incremental costing techniques that are in accordance with accepted economic theory, plus specific Network deployment strategies, first choice provisioning guidelines, and equipment purchasing information.

Cost study assumptions are as follows:

Software expenses were projected to the 1996-1998 study period using the Telephone Plant Indexes of its associated (377C) investment.

Software expenses such as Right-To-Use fees are amortized over five years to develop an equivalent annual cost.

FLORIDA

DIRECT ACCESS TO DIRECTORY ASSISTANCE SERVICE

FACTORS AND LOADINGS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the Florida Direct Access to Directory Assistance Service cost study.

1996 - 1998 Directly Assigned A IT, Administration, Pay Gra IT Technical Support, Pay 6	ade 4,	(Regional)	\$82,601 \$65,472
1996 - 1998 Directly Assigned I Service Representative, JFC Marketing - Training, Pay C	2300	(Regional)	\$40.67 \$46.35
Labor Inflation Rate From 1995			1.0618
Hardware Inflation Rate (Region		1.011	
Amortization Factor (5 Years @		0.2857	
Miscellaneous Common Equipment and Power Factor (Regional)	nent 377C		1.0990
Gross Receipts Tax Factor (Florida)			1.0152
Land Loading (Regional)	20C		0.0023
Building Loading (Regional)	10C		0.0382
Annual Cost Factors (Regional)	(See following spre	adsheet)	

Image Table: ACFCURRENT

1985 BELLSOUTH TELECOMMUNICATIONS ACCOUNT AVERAGE ANNUAL COST FACTORS INCREMENTAL

Rev 10-May-96
• FOR USE IN SERVICE COST STUDIES ONLY

	fleld_code	depreciation a	acío_com	acfo_ine tax G	q cab_exb	acfc_mice	acic_adval tax	admin_dir	acic_oper_exp	tot_combined
	d2 idvorovdikionov librorova.	•	13.2%		(a+b+c)	i kanana kitan :			(a+f+g)	(d+h)
LAND	20C	0.0000	0.1118	0.0514	0.1632	0.0000	0.0113	0.0000	0.0113	0.1745
BUILDINGS	10C, 110C, 810C	0.0302	0.0088	0.0452	0.1740	0.0040	0.0113	0.0000	0.0153	0.1893
ANALOG ELEC SWITCH	77C, 877C, 977C	0.2629	0.0680	0.0306	0.3615	0.0210	0.0113	0,0000	0.0323	0.3938
DIGITAL ELEC SWITCH	377C, 887C	0.1134	0.0051	0.0302	0.2087	0.0327	0.0113	0.0000	0.0440	0.2527
OPERATOR SYSTEMS	117C,417C	0,1083	0.0751	0.0404	0.2238	0.0067	0.0113	0,0000	0.0180	0.2418
RADIO	167C, 67C, 867C, 967C	0.1434	0.0750	0.0348	0.2532	0.0142	0.0113	0.0000	0.0255	0.2787
DIGTL CIRC-DOS	157C	0.1810	0.0675	0.0305	0.2790	0.0145	0.0113	0.0000	0.0258	0.3048
DIGTL CIRC-PAIR GAIN	257C,D257C,F257C	0.1134	0.0636	0.0288	0.2058	0.0104	0.0113	0.0000	0.0217	0.2275
DIGTL CIRC-OTHER	357C,T357C,F357C,657C,957C	0,1134	0.0638	0.0297	0.2069	0.0110	0.0113	0.0000	0.0223	0.2292
ANALOG CIRC-PAIR GAIN		0,1689	0.0636	0.0248	0.2573	0.0033	0.0113	0.0000	0.0148	0.2719
ANALOG CIRC-OTHER	57C	0.1689	0.0839	0.0282	0.2610	0.0140	0.0113	0.0000	0.0253	0.2863
PBX	158C, 258C	0.2296	0,0771	0.0346	0.3413	0.0368	0.0113	0.0000	0.0481	0,3894
PUBLIC-COIN	198C, 189C	0.1483	0.0763	0,0348	0.2594	0.1972	0.0113	0,0000	0.2085	0.4679
PUBLIC-COINLESS	298C, 288C	0,1483	0.0763	0.0348	0.2594	0.1076	0.0113	0.0000	0,1189	0.3783
PUBLIC-OTHER	998C, 988C	0.1483	0.0763	0.0348	0.2594	0.0582	0.0113	0.0000	0.0695	0.3289
OTHER TERMINAL EQPT	358C,D758C,858C,558C, 828C,928C,F958C	0.1733	0.0812	0,0359	0.2904	0,0585	0.0113	0.0000	0.0698	0.3602
SUBSCRIBER PAIR GAIN	758C,D758C,F758C	0.0000	0.0000	0,0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
POLES	1C, 811C	0.0671	0.0725	0.0325	0.1721	0,0303	0.0113	0,0000	0.0416	0.2137
AERIAL CA - METAL	22C, 12C, 802C	0,0917	. 0,0797	0.0338	0.2052	0.0413	0,0113	0.0000	0.0526	0.2578
AERIAL CA - FIBER	822C, 812C, 882C, 982C, D22C, F22C, T22C, D12C, F12C, T12C	0.0867	0.0784	0.0347	0,1798	0.0110	0.0113	0.0000	0.0223	0,2021
UNGROUND CA - METAL	5C, 805C	0,1036	0.0613	0.0342	0.2191	0,0255	0.0113	0,0000	0.0368	0.2559
UNGROUND CA - FIBER	85C,885C,985C,D5C,F5C,T5C	0.0626	0.0800	0.0358	0.1784	0.0120	0.0113	0.0000	0.0233	0.2017
BURIED CA - METAL	45C, 846C	0.0676	0.0809	0.0354	0.2039	0.0417	0.0113	0.0000	0.0530	0.2569
BURIED CA - FIBER	845C,856C,956C,D45C, F45C,T45C	0,0585	0.0816	0.0367	0.1768	0,0108	0.0113	0,0000	0.0221	0.1989
SUBMARINE CA-METAL	6C, 806C	0.0860	0.0814	0.0386	0.2040	0.0106	0.0113	0.0000	0.0219	0,2259
SUBMARINE CA-FIBER	86C,886C,D6C,F6C,T6C	0.0860	0.0814	0.0355	0.2029	0.0106	0.0113	0.0000	0.0219	0.2248
INTRBLD NTWK-METAL	52C	0,0661	0.0785	0.0340	0.1786	0.0265	0.0113	0.0000	0,0378	0.2164
INTRBLD NTWK-FIBER	852C,D62C,F52C,T52C	0,0661	0.0785	0.0340	0.1786	0,0265	0.0113	0.0000	0.0378	0.2164
CONDUIT SYSTEMS	4C, 84C, 94C	0.0242	0.0877	0.0401	0.1520	0.0025	0.0113	0.0000	0.0138	0,1658

FLORIDA



DACC ACCESS SERVICE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE COST STUDY DOCUMENTATION

CONTENTS

SECTION 1 Introduction and Overview

SECTION 2 Description of Study Procedures

SECTION 3 Summary of Results

Proprietary Rationale

Workpapers

Summary of Costs

Cost Development - Recurring

Summary of Volume Sensitive Costs
Development of Volume Insensitive Costs

SECTION 5 Cost Development - Nonrecurring

SECTION 6 Specific Study Assumptions

SECTION 7 Factors and Loadings

SECTION A

SECTION 4

SECTION A

SECTION A

FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

PROPRIETARY RATIONALE

The Florida Directory Assistance Call Completion Access Cost Study contains costs which reflect BellSouth's long run incremental cost of providing this service on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

For these reasons the Florida Directory Assistance Call Completion Access Service Cost Study is considered proprietary.

FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

INTRODUCTION AND OVERVIEW

These Long Run Incremental Cost (LRIC) and Total Service Long Run Incremental Cost (TSLRIC) studies are being provided to support Directory Assistance Call Completion (DACC) Access Service in the state of Florida.

LRIC is the volume sensitive incremental cost. TSLRIC is expressed as a unit incremental cost. It is developed by dividing the volume insensitive incremental cost by demand, and then adding the resultant value to the volume sensitive incremental cost.

Directory Assistance Call Completion Access Service is an arrangement offered to Alternative Local Exchange Carriers (ALECs) for the purpose of allowing the end user calls originating from central offices belonging to ALECs to automatically (i.e., without having to dial the number) complete his/her call after obtaining the desired number from Directory Assistance.

A standard announcement is made following a request by the end user to Directory Assistance for a Local Exchange Subscriber telephone number. This announcement advises the customer of the option to have the call completed automatically for a specified charge. It also instructs the customer on how to select whether or not he/she wishes to use the service.

The charge to the ALEC for this service is in addition to other applicable Directory Assistance charges to the ALEC.

FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Florida Directory Assistance Call Completion Access Service.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. for a service may include volume sensitive and/or volume insensitive Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs in this study are recurring (capital and operating expenses) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

Annual costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

SECTION 2 (Cont'd)

FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

DESCRIPTION OF STUDY PROCEDURES (Cont'd)

The first step in developing an incremental study of recurring costs for Directory Assistance Call Completion Access is to determine the forward-looking network architecture. Material prices for the equipment are defined.

Next, 1995 Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each USOA FRC) are applied to investments by account code, yielding an annual cost per account code.

LRIC is the volume sensitive incremental cost. The average volume insensitive incremental unit cost is developed by dividing the total annual volume insensitive costs by annual demand. The TSLRIC Unit Cost is developed by adding the LRIC Volume Sensitive Unit Cost and the Average Volume Insensitive Incremental Unit Cost.

z 3 4	FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE SUMMARY OF RESULTS					
5 6 7	This section contains a cost summary for the Long Run Incremental Cost (LRIC) and Total Service LRIC Unit Cost for providing this service.					
B	DACC Access Service					
9	LRIC Unit Cost per Call Attempt Total Volume Insensitive Cost TSLRIC Unit Cost per Call Attempt					

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FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

COST DEVELOPMENT - RECURRING

This section defines the cost development of the recurring costs for Florida Directory Assistance Call Completion Access Service.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; and material prices are obtained. Annual cost factors are applied to convert the investment to cost.

The following workpapers develop the volume sensitive costs, which include hardware and software expenses associated with Interactive Voice Systems, and volume insensitive software costs. These results are then summarized and converted to an average cost per call attempt.

Workpaper 2 develops volume sensitive costs for DACC Access Service on a per call attempt basis. Volume sensitive costs for this service are investment related costs and software costs associated with the Interactive Voice System (IVS).

To develop the investment related cost, the Miscellaneous Common Equipment & Power factor is applied to the Interactive Voice System (IVS) investment per IVS. The time in seconds per DACC call attempt and the Digital Electronic Switch annual cost factor are then applied to the hardware investment per IVS divided by the annual engineered traffic volume per IVS to develop a Digital Electronic Switch Cost per call attempt. Land and Building Loading factors are applied to the investment to develop land and building investment. Land and Building annual cost factors are then applied to develop Land and Building costs.

To develop the volume sensitive software cost, an annuity factor is applied to the IVS software expense to amortize the software costs over a five-year period. The Gross Receipts Tax Factor is applied to the IVS software expense per call attempt.

Workpaper 3 develops the volume insensitive costs. Volume insensitive costs for this service are software costs for the Operator Service System switch and Gateway. These software costs are amortized over a five-year period. The Gross Receipts Tax factor is also applied. The annual volume insensitive costs are then divided by the annual demand to develop an average volume insensitive cost per call attempt.

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123		DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE FLORIDA		WORKPAPER 1 PAGE 1 of 1		
4	SUMI	MMARY OF COSTS 7-15-96				
	(A)	(B)	(c)	(P)		
5	Line	<u>Description</u>	Source	Amount		
6	1. 2.	DACC Cost per Call Attempt - Volume Sensitive Cost	WP2 Ln36			
8 9	3. 4.	DACC Cost per Call Attempt - Avg Volume Insensitive Cost	WP3 Ln14			
10	5.	TSLRIC Unit DACC Access Cost per Call Attempt	in 1 + Ln 3	Ε		

DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE FLORIDA

WORKPAPER 2 PAGE 1 of 1 7-15-96

COST PER CALL ATTEMPT DEVELOPMENT OF VOLUME SENSITIVE COSTS

DEVE	LOPMENT OF VOLUME SENSITIVE COSTS	, ,	4.5
(A)	(8)	(C)	(D)
_ ′	(b)	<u></u>	
Line	<u>Description</u>	Source	<u>Amount</u>
1.	Volume Sensitive Investment Related Cost per Cal	l Attempt	
2.			
3.	Interactive Voice System (IVS) Investment per IVS	Fundamental IVS Inv & Exp Study	
4.	Misc. Common Eqpt. & Power Factor	BST Fundamental Cost	1.0938
5.	Total Investment w/MCE&P per IVS	Ln 3 ° Ln 4	
6.	Annual Engineered Traffic Volume per IVS (seconds)	Fundamental IVS Inv & Exp Study	545,512,474
7.	Seconds per DACC call attempt	Operator Services	15
8.	Dig Elec Switch Annual Cost Factor	BST Fundamental Cost	0.2539
9.	Dig Elec Switch Cost per call attempt	(Ln 5/Ln 6) * Ln 7 * Ln 8	
10.	·		The same of the Street Street
11.		•	
12.	Land Loading Factor	BST Fundamental Cost	0.0025
13.	Land Investment per IVS	Ln 5 * Ln 12	
14.	Land Annual Cost Factor	BST Fundamental Cost	0.1716
15.	Land Cost per call attempt	(Ln 13/Ln 6) * Ln 7 * Ln 14	
16.			
17.			
18.	Building Loading Factor	BST Fundamental Cost	0.0319
19.	Building Investment per IVS	Ln 5 * Ln 18	
20.	Building Annual Cost Factor	BST Fundamental Cost	0.1864
21.	Building Cost per call attempt	(Ln 19/Ln 6) * Ln 7 * Ln 20	
22.		•	
23.			_
24.	Investment Related Cost per Call Attempt	Ln 9 + Ln 15 + Ln 21	_
25.			
26.			
27.	Volume Sensitive Software Cost per Call Attempt		
28.			
29.	RTU IVS software expense per IVS	Fundamental IVS Inv & Exp Study	
30.	Annuity Factor	BST Fundamental Cost	0.2857
31.	RTU IVS software expense per call attempt	(Ln 29/Ln 6) * Ln 7 * Ln 30	
ຼ32. [.]	Gross Receipts Tax Factor	BST Fundamental Cost	1.0152
33.	Software Cost per Call Attempt	Ln31 * Ln32	
34.			
35.			
36.	Volume Sensitive Cost per Call Attempt	Ln 24 + Ln 33	

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DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE FLORIDA

WORKPAPER 3 PAGE 1 of 1 7-15-96

COST PER CALL ATTEMPT DEVELOPMENT OF VOLUME INSENSITIVE COSTS

(A)	(B)	(c)	(\mathfrak{d})
<u>Line</u>	<u>Description</u>	Source	<u>Amount</u>
1. 2.	Volume Insensitive Costs	•	
3.	DACC Software		
4.	RTU software for Switch	Operator Services	
5.	RTU software for Gateway	Operator Services	
6. 7.	Total Volume Insensitive Software Cost	Ln4 + Ln5	
8.	Annuity Factor	BST Fundamental Cost	0.2857
9.	Gross Receipts Tax Factor	BST Fundamental Cost	1.0152
10.	Annual Volume Insensitive Cost	Ln6 * Ln8 * Ln9	
11.			
12.	Annual Demand - DACC Call Attempts	Operator Services	20,500,000
13.		•	, , , , , , , , , , , , , , , , , , , ,
14.	Average Vol Insensitive Cost per Call Attempt	Ln 10 / Ln 12	

FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

COST DEVELOPMENT - NONRECURRING

Not Applicable

FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

SPECIFIC STUDY ASSUMPTIONS

The cost study for Directory Assistance Call Completion Access Service for the state of Florida is based on direct incremental costing techniques that are in accordance with accepted economic theory, in addition to specific Network deployment strategies and equipment purchasing information.

Cost study assumptions are as follows:

Directory Assistance Call Completion Access Service is available to ALECs complying with specific requirements. The following conditions must be satisfied prior to the offer of DACC:

- ANI must be available.
- The requested listing must be a published number.
- The number retrieved from the data base must be intraLATA with respect to the originating line number.
- The originating caller must be released to an audio announcement including the offer of call completion.
- Originating callers must indicate via Dual Tone Multi-Frequency (DTMF) input the desire to complete or the ALEC must agree that all intraLATA calls should attempt to complete.

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FLORIDA DIRECTORY ASSISTANCE CALL COMPLETION ACCESS SERVICE

FACTORS AND LOADINGS

Following are the factors and loadings used in the Directory Assistance Call Completion Access cost study for Florida. Because DACC equipment is located in Charlotte, North Carolina, the following is based on North Carolina's Annual Cost Factors and Loadings and Florida's Gross Receipts Tax Factor:

Gross Receipts Tax Factor	0.0152	
Annuity Factor (based on 5 yrs. & 13.2% COM)	0.2857	
Miscellaneous Common Equipment & Power		
Annual Cost Factors:		
Digital Electronic Switch Land Building	0.2539 0.1716 0.1864	
Loading Factors:		
Land Building	0.0025 0.0319	

BellSouth Telecommunications, Inc. FPSC Docket No. 960833-TP Exhibit No. DDC-18

FLORIDA



DIRECTORY TRANSPORT

COST STUDY
DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

DIRECTORY TRANSPORT

COST STUDY DOCUMENTATION

CONTENTS

SECTION A	Proprietary Rationale
SECTION 1	Introduction and Overview
SECTION 2	Description of Study Procedures
SECTION 3	Summary of Results
SECTION 4	Cost Development - Recurring
	Workpapers
	Summary of Costs Development of Costs
SECTION 5	Cost Development - Nonrecuming
SECTION 6	Specific Study Assumptions
SECTION 7	Factors and Loadings

SECTION A

SECTION A

FLORIDA DIRECTORY TRANSPORT

PROPRIETARY RATIONALE

The Florida Directory Transport Cost Study contains costs which reflect BellSouth's long run incremental cost of providing this service on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

For these reasons the Florida Directory Transport Cost Study is considered proprietary.

FLORIDA DIRECTORY TRANSPORT

INTRODUCTION AND OVERVIEW

This Long Run Incremental Cost (LRIC) study is being provided to support Directory Transport for Directory Assistance Access Service in the state of Florida.

The Long Run Incremental Costs (LRIC) presented in this study are volume sensitive costs. Directory Transport for Directory Assistance Access Service has no volume insensitive costs.

Directory Transport provides for the transport facilities and termination between the Alternative Local Exchange Carrier's (ALEC's) premises and the Directory Assistance location as part of providing Directory Assistance Access Service. The charge to the ALEC for Directory Transport is in addition to other applicable Directory Assistance charges to the ALEC.

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FLORIDA DIRECTORY TRANSPORT

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Florida Directory Transport as part of providing Directory Assistance Access Service.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. may be volume sensitive and/or volume insensitive. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs in this study are recurring (capital and operating expenses) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

Annual costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

Costs for Directory Transport are developed using costs for Switched Common Transport - Facilities Termination Cost per Minute, Switched Common Transport Cost per Minute per Mile and Access Tandem Switching Cost per Minute from the Network Interconnection Service Cost Study. Directory Transport costs have been developed on a per call and per mile basis.

FLORIDA DIRECTORY TRANSPORT

SUMMARY OF RESULTS

This section contains a cost summary for the Long Run Incremental Cost (LRIC) for providing Directory Transport.

Directory Transport

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Switched Common Transport per DA Service Call Switched Common Transport per DA Service Call Mile Access Tandem Switching per DA Service Call

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FLORIDA DIRECTORY TRANSPORT

COST DEVELOPMENT - RECURRING

This section defines the cost development of the recurring costs for Florida Directory Transport.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; and material prices are obtained. Annual cost factors are applied to convert the investment to cost.

The following workpapers develop the volume sensitive costs for Directory Transport on a per call and per mile basis. The results are summarized in Workpaper 1.

Workpaper 2 develops costs for Directory Transport for Switched Common Transport per DA Service Call, Switched Common Transport per DA Service Call Mile and Access Tandem Switching per DA Service Call. These costs were developed using costs for Switched Common Transport - Facilities Termination Cost per Minute, Switched Common Transport Cost per Minute per Mile and Access Tandem Switching Cost per Minute from the Network Interconnection Service Cost Study. Directory Transport costs have been developed on a per call and per mile basis using a 42-second holding time per DA call as obtained from Operator Services.

1 2		IRECTORY TRANSPORT LORIDA	•		WORKPAPER 1 PAGE 1 of 1
4	s	UMMARY OF COSTS			7-15-96
•	(4	4)	(B)		(a)
5	Ĺ	ine	Description	Source	Amount
67	4	1. Switched Common 2.	Transport per DA Service Call	WP 2 Ln 13	
g.		3. Switched Common	Transport per DA Service Cali	Mile WP 2 Ln 15	
9		4. 5. Access Tandem Sw	itching per DA Service Call	WP 2 Ln 17	,

DIRECTORY TRANSPORT FLORIDA

DEVELOPMENT OF COSTS

WORKPAPER 2 PAGE 1 of 1 7-15-96

(A)	(\mathcal{B})	(C)	$\langle \mathcal{D} \rangle$
Line	<u>Description</u>	Source	Amount
1. 2.	Switched Common Transport - Facilities Term Cost per Min.	Ntwk-Interconnection Svc Cost Study	
3. 4.	Switched Common Transport Cost per Min. per Mile	Ntwk Interconnection Svc Cost Study	
5. 6. 7.	Access Tandern Switching Cost per Min.	Ntwk Interconnection Svc Cost Study	
8. 9.	Holding Time (in seconds) per DA Call	Operator Services	42
10. 11. 12.	Holding Time as a percent of a minute	Ln 8 / 60	70%
13. 14.	Switched Common Transport per DA Service Call	Ln 1 * Ln 10 *	
15. 16.	Switched Common Transport per DA Service Call Mile	Ln 3 * Ln 10	
17.	Access Tandem Switching per DA Service Call	Ln 5 * Ln 10	

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FLORIDA DIRECTORY TRANSPORT

COST DEVELOPMENT - NONRECURRING

Not Applicable

FLORIDA DIRECTORY TRANSPORT

SPECIFIC STUDY ASSUMPTIONS

The cost study for Directory Transport for the state of Florida is based on direct incremental costing techniques that are in accordance with accepted economic theory, in addition to specific Network deployment strategies and equipment purchasing information.

Cost study assumptions are as follows:

Holding Time (in seconds) per DA Call 42

FLORIDA DIRECTORY TRANSPORT

FACTORS AND LOADINGS

Following are incremental annual cost factors and loadings used in the development of costs for Directory Transport Cost Study for Florida:

Annual Cost Factors:

10C	0.19510			
20C	0.17720			
357C	0.23550	(includes	TIRKS	expense)
377C	0.25200			• •
811C	0.21450			
822C	0.20810			
845C	0.20560			
84C	0.16860			
85C	0.20630			

In-Plant Factor:

Telco 377C 1.12360

Miscellaneous Common Equipment and Power Loadings:

377C 1.09770

Land and Building COE Loadings:

10C 0.04040 1 20C 0.00300

FLORIDA



NUMBER SERVICES INTERCEPT ACCESS SERVICE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

NUMBER SERVICES INTERCEPT ACCESS SERVICE COST STUDY DOCUMENTATION

CONTENTS

SECTION A	Proprietary Rationale
SECTION 1	Introduction and Overview
SECTION 2	Description of Study Procedures
SECTION 3	Summary of Results
SECTION 4	Cost Development - Recurring
	Summary of Costs Summary of Volume Sensitive Costs Summary of Volume Insensitive Costs Development of Costs for LION System Development of Costs for CAMS Development of Costs for Data Links Development of Costs for Voice Links
SECTION 5	Cost Development - Nonrecurring
SECTION 6	Specific Study Assumptions
SECTION 7	Factors and Loadings

SECTION A

SECTION A

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE PROPRIETARY RATIONALE

The Florida Number Services Intercept Access Cost Study contains costs which reflect BellSouth's long run incremental costs of providing this service on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

For these reasons, the Florida Number Services Intercept Access Service Cost Study is considered proprietary.

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE INTRODUCTION AND OVERVIEW

These Long Run Incremental Cost (LRIC) and Total Service Long Run Incremental Cost (TSLRIC) studies are provided in support of Number Services Intercept Access Service in the state of Florida.

LRIC is the volume sensitive incremental cost. TSLRIC is expressed as a unit incremental cost. It is developed by dividing the volume insensitive incremental cost by demand, and then adding the resultant value to the volume sensitive incremental cost.

Number Services Intercept Access Service is an arrangement offered to Alternative Local Exchange Carriers (ALECs) for the purpose of providing a recorded announcement for calls placed to discontinued or non-working numbers originating from central offices belonging to ALECs.

Standard trunk signaling is used to send the intercepted number to the Number Services switch and a database retrieval is performed to obtain the referral number. The referral number is provided to the calling party by a mechanized audio announcement. The subscribing ALEC must provide the updates to the Intercept database to support the service.

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Florida Number Services Intercept Access Service.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternatively, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. Costs for a service may include volume sensitive and/or volume insensitive costs. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs in this study are recurring (capital and operating expenses) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

Annual costs to BellSouth Telecommunications, Inc., resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

SECTION 2 (Cont'd)

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE DESCRIPTION OF STUDY PROCEDURES (Cont.d)

The first step in developing an incremental study of recurring costs for Number Services Intercept Access is to determine the forward-looking network architecture. Material prices for the equipment are defined. A Miscellaneous Common Equipment and Power Factor is applied to material prices to develop investments which include miscellaneous common equipment and power.

Next, 1995 Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each USOA FRC) are applied to investments by account code, yielding an annual cost per account code.

LRIC is the volume sensitive incremental cost. The average volume insensitive incremental unit cost is developed by dividing the total annual volume insensitive costs by annual demand. The TSLRIC Unit Cost is developed by adding the LRIC volume sensitive unit cost and the average volume insensitive incremental unit cost.

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE SUMMARY OF RESULTS

This section contains a cost summary for the Long Run Incremental Cost (LRIC) and Total Service LRIC unit cost for providing this service.

Number Services Intercept Access Service

A

LRIC Unit Cost per Intercept Query Total Volume Insensitive Cost TSLRIC Unit Cost per Intercept Query

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FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE

COST DEVELOPMENT - RECURRING

This section defines the cost development of the recurring costs for Florida Number Services Intercept Access.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; and material prices are obtained. Annual cost factors are applied to convert the investment to cost.

Recurring costs are developed for the fixed and per mile component of the facilities. The following workpapers develop the volume sensitive costs and volume insensitive costs. These results are then summarized and converted to an average cost per Intercept query.

Workpaper 2 develops volume sensitive costs for Number Services Intercept Access Service on a per Intercept Query basis.

To develop the investment related cost, the Miscellaneous Common Equipment & Power factor is applied to the Interactive Voice System (IVS) Investment per IVS. The time in seconds per Intercept query and the Digital Electronic Switch Annual Cost Factor are then applied to the hardware investment per IVS divided by the annual engineered traffic volume per IVS to develop a Digital Electronic Switch Cost per Query. Land and Building Loading factors are applied to the investment to develop land and building investment. Land and Building annual cost factors are then applied to develop Land and Building costs.

To develop the volume sensitive software cost, an annuity factor is applied to the IVS software expense to amortize the software costs over a five-year period. The Gross Receipts Tax Factor is applied to the IVS software expense per query to develop the IVS software cost per query.

Workpaper 3 develops the Average Volume Insensitive Costs on a per Intercept Query basis. The cost components are Line Information for Open Network (LION) hardware and software, Central Administrative and Maintenance (CAM) hardware and software, and expenses for data links and voice links. The annual volume insensitive costs are summed and then divided by annual demand to develop an average volume insensitive cost per intercept query.

SECTION 4 (Cont'd)

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE

COST DEVELOPMENT - RECURRING (Cont'd)

Workpaper 4 develops volume insensitive costs related to the LION system.

To develop the investment related annual cost, the Miscellaneous Common Equipment & Power factor and Digital Electronic Switch Annual Cost Factor are applied to the hardware investment. Land and Building Loading factors are applied to the investment to develop land and building investment. Land and Building annual cost factors are then applied to develop Land and Building annual costs.

To develop the volume insensitive software cost, the RTU expense for software is amortized over a five-year period. The Gross Receipts Tax Factor is also applied.

Workpaper 5 develops volume insensitive costs related to the Central Administrative and Maintenance (CAM) system.

To develop the investment related cost associated with CAMS, the Miscellaneous Common Equipment & Power factor and Digital Electronic Switch Annual Cost Factor are applied to the hardware investment. Land and Building Loading factors are applied to the investment to develop land and building investment. Land and Building annual cost factors are then applied to develop Land and Building annual costs.

To develop the software cost, the RTU expense for software is amortized over a five-year period. The Gross Receipts Tax Factor is also applied.

Workpaper 6 develops the annual cost for data links between the TOPS and LION systems and between the LION and IVS system. The investments, by component, are multiplied by their associated annual cost factors and are summed to calculate the annual cost for these facilities.

Workpaper 7 develops the annual cost for voice links between the TOPS and IVS systems. The investments, by component, are multiplied by their associated annual cost factors and are summed to calculate the annual cost for these facilities.

1.

WORKPAPER 1 PAGE 1 of 1 7-15-96

SUMMARY OF COSTS

<u>Line</u>	A Description	8 Source	Amount
1. 2.	Volume Sensitive Cost per Intercept Query	WP2 Ln35	
3. 4.	Volume Insensitive Cost per Intercept Query	WP3 Ln 14	
5.	TSLRIC Unit Intercept Access Cost per Query	Ln 1 + Ln 3	

FLOR	 -		WORKPAPER 2 PAGE 1 of 1 7-15-96
DEVE	PER INTERCEPT QUERY LOPMENT OF VOLUME SENSITIVE COSTS		
	opment of Cost for Interactive Voice System (IVS)	(c)	(0)
(A)	(B)		برني
<u>Line</u>	<u>Description</u>	Source	<u>Amount</u>
1. 2.	Volume Sensitive Inv & Related Cost per Query		
3.	Interactive Voice System (IVS) Investment per IVS	Fundamental IVS Inv & Exp Study	
4.	Misc. Common Eqpt. & Power Factor	BST Fundamental Cost	1.0938
5.	Total Investment w/MCE&P per IVS	Ln 3 * Ln 4	
6.	Annual Eng Traffic volume per IVS (seconds)	Fundamental IVS Inv & Exp Study	545,512,474
7.	Seconds per Intercept query	Operator Services	15
8.	Dig Elec Switch Annual Cost Factor	BST Fundamental Cost	0.2539
9.	Dig Elec Switch Cost per Query	(Ln 5/Ln 6) * Ln 7 * Ln 8	
10.			
11. 12.	Land Loading Factor	BST Fundamental Cost	0.0025
13.	Land Investment per IVS	Ln 5 * Ln 12	0.0023
14.	Land Annual Cost Factor	BST Fundamental Cost	0.1716
15.	Land Cost per Query	(Ln 13/Ln 6) * Ln 7 * Ln 14	
16.		,	
17.			
18.	Building Loading Factor	BST Fundamental Cost	0.0319
19.	Building Investment per IVS	Ln 5 * Ln 18	
20.	Building Annual Cost Factor	BST Fundamental Cost	0.1864
21.	Building Cost per Query	(Ln 19/Ln 6) * Ln 7 * Ln 20	
22.			
23. 24.	Total investment Related Cost per Query	Ln9 + Ln15 + Ln21	
2 5 .	Total investment Related Cost per Guery	Tria + 0112 + 0151	
26.			
27.	Volume Sensitive Software Cost per Query		
28.	RTU IVS software expense per IVS	Fundamental IVS Inv & Exp Study	
29.	Annuity Factor	BST Fundamental Cost	0.2857
30.	RTU IVS software expense per query	(Ln 28/Ln 6) * Ln 7 * Ln 29	
31.	Gross Receipts Tax Factor	BST Fundamental Cost	1.0152
32.	Software Cost for IVS per Query	Ln30*Ln31	
33 .			
34.			*

Ln24 + Ln32

35. Volume Sensitive Cost per Intercept Query

WORKPAPER 3 PAGE 1 of 1 7-15-96

SUMMARY OF VOLUME INSENSITIVE COSTS

(A)	(B)	(c)	(V)
<u>Line</u>	<u>Description</u>	Source	Amount
1.	Annual Cost		
2. 3.	LION Hardware	WP 4 Ln 24	
3. 4.	LION Software	WP 4 Ln 32	
5.	CAMS Hardware	WP 5 Ln 24	
6.	CAMS Software	WP 5 Ln 32	
7.	TOPS/LION Data Links	WP 6 Ln 17	
8.	LION/IVS Data Links	WP 6 Ln 36	
9.	TOPS/IVS Voice Links	WP 7 Ln 17	
10.	Annual Volume Insensitive Cost	Sum Ln 3Ln 9	
11.			
12.	Annual Demand - Intercept Queries	Operator Services	232,500,000
13.			, ,
14.	Avg Vol Insensitive Cost per Intercept Query	Ln 10 / Ln 12	

WORKPAPER 4 PAGE 1 of 1 7-15-96

COST PER CALL DEVELOPMENT OF VOLUME INSENSITIVE COSTS Development of Cost for LION System

	opment of Cost for LION System (B) Description	Source	(b) Amount
1. 2.	Hardware FDDI Investment - Installed	Operator Services	
2. 3.	LION Investment - Installed	Operator Services	
4.	Misc. Common Eqpt. & Power Factor	BST Fundamental Cost	1.0938
5.	Total Investment w/MCE&P	(Ln 2 + Ln 3) * Ln 4	
6.			
7 .	·		
8.	Dig Elec Switch Annual Cost Factor	BST Fundamental Cost	0.2539
9.	Dig Elec Switch Annual Cost	Ln 5 ° Ln 8	
10.			
11.	1 and Londina Forton	DOT Fundamental Conf	0.0005
12. 13.	Land Loading Factor Land Investment	BST Fundamental Cost Ln 5 * Ln 12	0.0025
14.	Land Annual Cost Factor	BST Fundamental Cost	0.1716
15.	Land Annual Cost	Ln 13 * Ln 14	0.1710
16.			
17.			
18.	Building Loading Factor	BST Fundamental Cost	0.0319
19.	Building Investment	Ln 5 * Ln 18	
20.	Bulding Annual Cost Factor	BST Fundamental Cost	0.1864
21.	Building Annual Cost	Ln 19 * Ln 20	
22.			
23. 24.	Total Investment Related Annual Cost - LION	Ln9 + Ln15 + Ln21	
24. 25.	total livesullent Neiated Annual Cost - Lion		
26.			
27.	Software		
28. 29.	Software Expense - Installed	Operator Services	
30.	Annuity Factor	BST Fundamental Cost	0.2857
31.	Gross Receipts Tax Factor	BST Fundamental Cost	1.0152
32.	Annual Software Cost for LION	Ln29*Ln30*Ln31	

WORKPAPER 5 PAGE 1 of 1 7-15-96

COST PER CALL DEVELOPMENT OF VOLUME INSENSITIVE COSTS Development of Cost for CAMS

1. Hardware 2. 3. Investment - Installed Operator Services 4. Misc. Common Eqpt. & Power Factor BST Fundamental Cost 5. Total Investment w/MCE&P Ln 3 ° Ln 4)
1. Hardware 2. 3. Investment - Installed Operator Services 4. Misc. Common Eqpt. & Power Factor BST Fundamental Cost 5. Total Investment w/MCE&P Ln 3 * Ln 4	A
 Investment - Installed Misc. Common Eqpt. & Power Factor Total Investment w/MCE&P Operator Services BST Fundamental Cost Ln 3 ° Ln 4 	ount
 Investment - Installed Misc. Common Eqpt. & Power Factor Total Investment w/MCE&P Operator Services BST Fundamental Cost Ln 3 ° Ln 4 	
4. Misc. Common Eqpt. & Power Factor BST Fundamental Cost 5. Total Investment w/MCE&P Ln 3 ° Ln 4	
5. Total Investment w/MCE&P Ln 3 * Ln 4	
	1.0938
_	
6 .	
7.	
8. Dig Elec Switch Annual Cost Factor BST Fundamental Cost	0.2539
9. Dig Elec Switch Annual Cost Ln 5 ° Ln 8 10.	
10. 11,	
12. Land Loading Factor BST Fundamental Cost	0.0025
13. Land Investment Ln 5 * Ln 12	0.0025
14. Land Annual Cost Factor BST Fundamental Cost	0.1716
15. Land Annual Cost £n 13 ° Ln 14	
16.	
17.	
18. Building Loading Factor BST Fundamental Cost	0.0319
19. Building Investment Ln 5 * Ln 18	
20. Bulding Annual Cost Factor BST Fundamental Cost	0.1864
21. Building Annual Cost Ln 19 ° Ln 20	
22 .	
23.	
24. Total Investment Related Annual Cost - CAMS Ln9 + Ln15 + Ln21	
25.	
26.	
27. <u>Software</u> 28.	
29. Software Expense - Installed Operator Services	
30. Annuity Factor BST Fundamental Cost	0.2857
31. Gross Receipts Tax Factor BST Fundamental Cost	1.0152
32. Annual Software Cost for CAMS Ln29*Ln30*Ln31	

WORKPAPER 6 PAGE 1 of 1 7-15-96

COST PER CALL DEVELOPMENT OF VOLUME INSENSITIVE COSTS Development of Annual Cost for Data Links

(A)	(B)	(c)	(D)	(E)	(F)
Line	Data Links	<u>Links/Miles</u>	Unit Investment	Annual Cost Factor	Annual Cost
1,	TOPS/LION DATA LINKS	a	b	С	d=a*b*c
2.	TOT OF BOTH DATA LINKS				
3.	Termination				
4.	Circuit	18		0.2380	
5.	Land	18		0.1772	
6.	Building	18		0.1922	
7.					
8.	Mileage				
9.	Aerial Fiber	1,720		0.2052	
10.	Buried Fiber	1,720		0.2019	
11.	Underground Fiber	1,720		0.2048	
· 12.	Pole	1,720		0.2169	
13.	Conduit	1,720		0.1683	
14.	Circuit	1,720		0.2380	
15. 16.	Building	1,720		0.1922	
17. 18. 19.	Total Annual Cost - TOPS/LIG	ON Data Links			
20. 21.	LION/IVS DATA LINKS				
22.	Termination				
23.	Circuit	18		0.2380	
24.	Land	18		0.1772	
25 .	Building	18		0.1922	
26.	_				
-27.	Mileage	•			
28.	Aerial Fiber	1,570		0.2052	
29.	Buried Fiber	1,570		0.2019	
30.	Underground Fiber	1,570		0.2048	
31.	Pole	1,570		0.2169	
32.	Conduit	1,570		0.1683	
33.	Circuit	1,570		0.2380	
34.	Building	1,570		0.1922	
35.					
38.	Total Annual Cost - LION/IVS	Data Links			

WORKPAPER 7 PAGE 1 of 1 7-15-96

COST PER CALL DEVELOPMENT OF VOLUME INSENSITIVE COSTS Development of Annual Cost for Voice Links

(A) Line	(G) DS1 Voice Links	(C) Unit Links/Miles Investmen a b	Annual t Cost Factor c	Annual Cost d=a*b*c
1.	TOPS/IVS VOICE LINKS			
2.				
3.	Termination			
4.	Circuit	25	0.2380	
5.	Land	25	0.1772	
6.	Building	25	0.1922	
7.				
8.	Mileage			
9.	Aerial Fiber	3,125	0.2052	
10.	Buried Fiber	3,125	0.2019	
11.	Underground Fiber	3,125	0.2048	
12.	Pole	3,125	0.2169	
13.	Conduit	3,125	0.1683	
14.	Circuit	3,125	0.2380	
15.	Building	3,125	0.1922	
16.	- anding	0,120	0.1842	
17.	Total Annual Cost - TOPS/IV	S Voice Links		
11.	Total Annual Cost - 10P3/IV	9 Agine Fluxa		

PLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE

COST DEVELOPMENT - NONRECURRING

Not Applicable

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE

SPECIFIC STUDY ASSUMPTIONS

The cost study for Number Services Intercept Access for the state of Florida is based on direct incremental costing techniques that are in accordance with accepted economic theory, in addition to specific Network deployment strategies and equipment purchasing information.

Cost study assumptions are as follows:

- 1. The equipment that will be deployed is Nortel equipment.
- 2. The Line Information for Open Network (LION) is the database for Number Services Intercept. This database contains the non-working numbers along with information on referrals.
- 3. The Central Administrative and Maintenance (CAM) is the monitoring system which monitors the LION and IVS.
- 4. The Interactive Voice System (IVS) provides the audio response to the calling party.
- 5. Voice and data links interconnect the Traffic Operator Position System, the LION system, the CAMS and the IVS.

FLORIDA NUMBER SERVICES INTERCEPT ACCESS SERVICE

FACTORS AND LOADINGS

Following are the factors and loadings used for IVSs, CAMS and LION system in the Number Services Intercept Access cost study for Florida. Because the equipment is located in Charlotte, North Carolina, the following is based on North Carolina's Annual Cost Factors and Loadings and Florida's Gross Receipts Tax Factor:

Misc. Common Equipment & Power Factor	1.0938
Gross Receipts Tax Factor	0.0152
Annuity Factor (based on 5 yrs. & 13.2% COM)	0.2857
Annual Cost Factors:	
Digital Electronic Switch Land Building	0.2539 0.1716 0.1864
Loadings Factors:	
Land Building	0.0025 0.0319

Following are the annual cost factors used for the TOPS/LION data links, LION/IVS data links and TOPS/IVS voice links in the Number Services Intercept Access cost study for Florida. Because the links cross state boundaries, the following is based on BellSouth Regional Annual Cost Factors and Florida's Gross Receipts Tax Factor:

gross receipts lax ractor	0.0152
Annual Cost Factors:	•
Digital Circuit 357C (w/TIRKS Land Building Aerial Cable Fiber Buried Cable Fiber Underground Cable Fiber Poles	expense) 0.2380 0.1772 0.1922 0.2052 0.2019 0.2048 0.2169

Gross Receipts Tay Factor

Conduit

0.1683

BellSouth Telecommunications, Inc. FPSC Docket No. 960833-TP Exhibit No. DDC-20.

FLORIDA



CCS7 SIGNALING TRANSPORT SERVICE

COST STUDY
DOCUMENTATION

SECTIONS A THRU 7

FLORIDA

CCS7 SIGNALING TRANSPORT SERVICE

COST STUDY DOCUMENTATION

CONTENTS

SECTION A	PROPRIETARY RATIONALE
SECTION 1	INTRODUCTION AND OVERVIEW
SECTION 2	DESCRIPTION OF STUDY PROCEDURES
SECTION 3	SUMMARY OF RESULTS
SECTION 4	COST DEVELOPMENT - RECURRING LRIC AND TSLRIC
SECTION 5	COST DEVELOPMENT - NONRECURRING
SECTION 6	SPECIFIC STUDY ASSUMPTIONS
SECTION 7	FACTORS AND LOADINGS

TAB A

SECTION A

CCS7 SIGNALING TRANSPORT

PROPRIETARY RATIONALE

The CCS7 Signaling Transport contains actual unit cost information for discrete cost elements. These costs reflect BellSouth's long run incremental cost of providing these elements on a going forward basis. Public disclosure of this information would provide BellSouth's competitors with an advantage. The data is valuable to competitors and potential competitors in formulating strategic plans for entry, pricing, marketing and overall business strategies. This information relates to the competitive interests of BellSouth and disclosure would impair the competitive business of BellSouth.

Additionally, the study contains information which reflects vendor-specific prices negotiated by BellSouth. Public disclosure of this information would impair BellSouth's ability to contract for goods and/or services on favorable terms. For these reasons, the CCS7 Signaling Transport Access Service Cost Study is considered proprietary.

TAB 1

CCS7 SIGNALING TRANSPORT SERVICE INTRODUCTION AND OVERVIEW

This cost study develops the recurring incremental cost for a Common Channel Signaling/System Signaling 7 (CCS7) Signaling Connection (a signaling link), Signaling Termination and Signaling Usage. The latter is developed on both a per signaling message and per signaling connection basis. The study also develops the nonrecurring cost for establishment of the Signaling Connection.

The service provides access to the Common Channel Signaling Network and transport of signaling messages used for call set-up and database query/response. The primary components of the network are Signal Transfer Points (STPs) and Signaling Links. The STPs are packet switches which route signaling messages through the network. The Signaling Links connect end and tandem office switches to the STPs, and the STPs to Service Control Points (SCPs). The SCPs are databases used for specific services such as Line Identification DataBase service.

The study has been developed on a Regional basis. The service is ordered through a Regional Service Center and the architecture is common throughout the Region.

TAB 2

COMMON CHANNEL SIGNALING TRANSPORT SERVICE

DESCRIPTION OF STUDY PROCEDURES

This section describes the general principles for the development of costs supporting Florida Common Channel Signaling Transport Service.

In determining costs, BellSouth uses direct incremental costing techniques that are in accordance with accepted economic theory. Direct incremental costs are based on cost causation and include all of the costs directly caused by expanding production, or, alternately, costs that would be saved if the production levels were reduced. The production unit may be an entire service or a unit of the service depending on the cost object involved. Costs may be volume sensitive and/or volume insensitive. Costs are forward looking in nature because only future costs can be saved. Incremental costs are long run to assure that the time period studied is sufficient to capture all forward looking costs affected by the business decision. Shared and common costs are not incremental and, therefore, are not included. Incremental costs include both recurring (capital and operating expenses) and nonrecurring (service provisioning) costs. Incremental costs account for the expected change in cost to the firm resulting from a new service offering or a change in demand for an existing service.

THE DEVELOPMENT OF RECURRING COSTS

The monthly costs to BellSouth Telecommunications, Inc. resulting from the capital investments necessary to provide a service are called recurring costs. Recurring costs include capital and operating costs. While capital costs include depreciation, cost of money and income tax, operating costs are the expenses of maintenance and ad valorem and other taxes. These expenses contribute to the ongoing cost to the company associated with the initial capital investment. Recurring costs may also be non-investment related, such as advertising, feature specific software and contract expenses. Recurring costs are developed using incremental economic study applications, representing a forward-looking view of technology and deployment.

The first step in developing an incremental study of recurring costs for Common Channel Signaling Transport Service is to determine the forward-looking network architecture. Prices for the software and equipment are defined. Next, account specific Telephone Plant Indexes are applied, when necessary, to trend investments and non-investment related expenses to the base study period. In-plant factors are applied to material prices to develop installed investments which include engineering and installation labor.

Appropriate loadings for land, building and miscellaneous common equipment and power are then applied to the electronic equipment. Support structure loadings are applied for poles and conduit to the aerial and underground fiber investments respectively.

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Next, 1995 level Incremental Annual Cost Factors are used to calculate the direct cost of capital, ongoing maintenance and other operating expenses and taxes. These factors (specific factors for each Uniform System of Account Field Reporting Code) are applied to levelized investments by account code, yielding an annual cost per account code. Both the investment and non-investment related annual costs are summed and then divided by annual demand to arrive at a unit cost for each component.

THE DEVELOPMENT OF NONRECURRING COSTS

Nonrecurring costs are "one-time" costs incurred as a result of provisioning, installing, and disconnecting the CCS7 Signaling Transport Service. The first step in developing nonrecurring costs is to determine the cost elements related to the study. These cost elements are then described by all of the individual work functions required to provision the cost element. The work functions can be grouped into five categories. These are service order, initiate/administer circuit orders, develop circuit specifications, develop software translations and update the circuit database. The work function times, identified by subject matter experts, are used to describe the flow of work within the various work centers. Installation and provisioning costs are developed by multiplying the work time for each work function by the directly assigned 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. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

TAB 3

FLORIDA

CCS7 SIGNALING TRANSPORT SERVICE

SUMMARY OF RESULTS

This section contains a cost summary for the Long Run Incremental Cost and Total Service Long Run Incremental Cost for CCS7 Signaling Transport Service.

7 CCS7 SIGNALING CONNECTION

Per 56 Kbps Facility, Per Month LRIC, Volume Sensitive Unit Cost

\$ 4.05

Per 56 Kbps Facility, Non-Recurring

\$394.51

CCS7 SIGNALING TERMINATION
Per STP Port, Per Month

LRIC, Volume Sensitive Unit Cost

CCS7 SIGNALING USAGE

Per Call Setup Message-LRIC, Volume Sensitive Unit Cost TSLRIC, Average Incremental Unit Cost

Per TCAP Message LRIC, Volume Sensitive Unit Cost TSLRIC, Average Incremental Unit Cost

CCS7 SIGNALING USAGE SURROGATE

Per 56 Kbps Facility, Per Month LRIC, Volume Sensitive Unit Cost

TSLRIC, Average Incremental Unit Cost

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TAB 4

CCS7 SIGNALING TRANSPORT SERVICE

COST DEVELOPMENT - RECURRING

This section defines the recurring cost development for Common Channel Signaling/System Signaling 7 (CCS7) Signaling Transport Service.

Generally, economic cost development is outlined in Section 2. Network architecture is determined; the necessary equipment is identified; software and material prices are obtained; and, utilization and loading factors are applied. Annual cost factors are applied to convert the investment to cost. Labor expense is directly identified.

The signaling connection and termination costs are comprised of an access link facility from a customer's location and the termination of that facility at the Signal Transfer Point (STP - a packet switch in the common channel signaling network).

For the access link on Workpaper 2, the investment for each facility component in the link is multiplied by its associated annual cost factor and summed to determine the annual cost. The annual cost is multiplied by the gross receipts tax factor and divided by twelve to derive the monthly cost.

For the termination of the access link on Workpaper 3, the annual cost of each vendor's hardware and the equivalent annual cost of the software (where applicable) for the termination of the access facility at the STP is developed using current vendor prices. These costs are divided by twelve and the resulting monthly costs are averaged in proportion to the relative number of ports.

The signaling usage is developed by first developing the CCS7 Signaling Transport cost per octet, followed by per signal message and finally per 56 Kbps Common Channel Signaling Access Facility per month.

An octet is an eight bit binary word. It is the basic element that composes the Signal Units that are used to convey information over the Common Channel Signaling network.

The cost per octet is based on the network infrastructure that provides signaling transport:

- The Signal Transfer Points (STPs), the packet switches that route signal units from one signaling link to another.
- The Cross Links and associated Port Terminations that connect mated STP pairs.
- The Access Links and associated Port Terminations that connect Service Switching Points (SSP) end offices to their home pair of STPs.

This study excludes the cost of network facilities and software feature packages that are specific to an individual service, e. g., Advanced Intelligent Network Services, 800 DataBase Service, etc.

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On Workpaper 7, the capacity of a signaling link in octets per month and the expected monthly octets carried by Common Channel Signaling Access (CCSAC) Links during calendar year 1995 are estimated.

Then on Workpaper 6, the cost per octet for Local STP Cross Links and SSP Access Links is calculated. The mileage-related investment for each facility component was multiplied by the average miles per link and added to the fixed investments. Fundamental unit investments for 56 kilobit per second interoffice facilities were used. The investments were then multiplied by their associated annual cost and summed to determine the annual cost.

The monthly cost divided by the link's capacity in octets produces the cost per octet for the link.

Next on Workpaper 5, the cost per octet for the Port Termination of a link is developed. The annual cost of each vendor's hardware prices and the equivalent annual cost of the software prices (where applicable) are first calculated. The monthly costs are then averaged in proportion to the relative number of ports. The resulting average port cost is divided by the link's monthly capacity in octets to develop the cost per octet.

The STP costs on Workpaper 4 are developed similarly to the Port costs. The investment and software expense for each vendor is first calculated per link pair. An octet will be received over one link and then transmitted over another. An STP's octet capacity is then a function of the number of link pairs and the capacity of a signaling link.

The vendor specific investments and software expense per link pair are averaged in proportion to the relative number of STPs.

The capitalized (Company) engineering, installation, common equipment and power are added to the investment and the land and building investments are calculated. These are multiplied by their associated annual cost factors, summed and divided by the monthly capacity in octets for a link pair.

The software expense is annualized and a cost per octet is also calculated.

The monthly cost of the average Cross Links and Ports for an STP are calculated similarly. These C Links and Ports tie STPs together for administrative communication.

Among the CCS7 Transport Service Components, the STP software expense and the C Links/Ports are volume insensitive. The quantities and cost of the other components are a function of demand, and are volume sensitive.

On Workpaper 1, using the average octets per message, the Integrated Service Digital Network - User Part (ISUP, trunk set-up signaling messages) and the Transactions Capabilities Application Part (TCAP, information transfer messages) costs per message are developed.

The cost per octet and the average octets per 56 Kbps CCSAC facility are then used to develop the monthly signaling usage per facility.

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The following Workpapers detail the cost development.

1 CCS7 SIGNA			FLORIDA
2 TRANSPORT	SERVICE COST SUMMARY		WORKPAPER 1
3 RECURRING	COST		PAGE 1 OF 1
4			TAGE TOT T
5			 4
6 DESCRIPTIO	N	SOURCE	AMOUNT
7			AMOUNT
8 CCS7 Signal	ing Connection		
	Facility, per mo - Volume Sensitive	WP2, Ln31	\$4.05
10	Tacany, per me Totaline Considere	1772, 0.01	44.05
11			
12		 	
13 CCS7 Signali	na Termination		
	t, per mo Volume Sensitive	12/02 1-25	
	t, per mo volume Sensitive	WP3, Ln35	
15		 	
16 CCS7 Signali		14/04 04 1 55	
	& Port - Volume Sensitive	WP4, P1, Ln32	
	& Port - Volume Insensitive	WP4, P1, Ln33	THE THE TANK THE PARTY OF THE P
19			Mark at 4 to 1775 Charac
20			<u> </u>
	orts -Volume Sensitive	WP5,Ln35 + WP6,Ln21	
22			
23 Gross Receipt	s Tax Factor		1.0152
24		<u> </u>	<u> </u>
	t, Volume Sensitive	(Ln17+Ln21)xLn23	
	t, Volume Insensitive	(Ln18)xLn23	
27			
	s per setup(ISUP) Message		24.5
	s per TCAP Message	<u> </u>	84.5
30			
	Per Call SetUp (ISUP)Message		
	Sensitive Incremental Unit Cost	Ln25 x Ln 28	<u></u>
33 Volume Insens	itive incremental Unit Cost	Ln26 x Ln 28	<u> </u>
34 TSLRIC, Aven	age Incremental Unit Cost	Ln32 + Ln33	
35			
36 CCS7 Usage	Per TCAP Message		•
37 LRIC, Volume	Sensitive Incremental Unit Cost	Ln25 x Ln29	
38 Volume Insens	itve Incremental Unit Cost	Ln26 x Ln29	
39 TSLRIC, Aven	nge Incremental Unit Cost	Ln37 + Ln38	
40			And the state of t
	hly Octets per 56 Kbps Facility	Workpaper 7 Ln 27	260,462,704
42			
	g Usage Surrogate		-MARIE I
	Sensitive Incremental Unit Cost	Ln25 x Ln41	
	sitive Incremental Unit Cost	Ln26 x Ln41	
	age Incremental Unit Cost	Ln44 + Ln45	
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	CCS7 SIGNALING		FLORIDA
2	CONNECTION		WORKPAPER 2
3	<u>1 </u>		PAGE 1 OF 1
4			
5			
6	DESCRIPTION	SOURCE	AMOUNT
7			
8	Investment		†
9	Land		\$0.34
10	Building		\$7.48
11	Digital Circuit		\$182.73
12	Aerial		\$3.60
13	Buried		\$11.70
14	Underground		\$4.50
15	Poles		\$0.90
16	Conduit	i	\$2.40
17	Total Cost		\$213.65
18			
19	Annual Cost Factor		
20	Land 20C		0.1745
	Building 10C		0.1893
	Digital Circuit 357C		0.2292
23	Aerial 822C		0.2021
	Buried 845C		0.1989
	Underground 85C		0.2017
26	Poles 811C		0.2137
	Conduit 84C		0.1658
28		-	0.1000
	Annual Cost	Algorithm 1	\$47.91
	Gross Receipts Tax Factor		1.0152
31	Total Monthly Cost	(Ln29xLn30)/12	\$4.05
			7.100
	Algorithm 1: (L9xL20)+(Ln10xLn21)+(L	_n11xLn22)+(Ln12xLn23)+(Ln13	xLn24)+(Ln14xLn25)+
	(Ln15xLn26)+(Ln16xLn	27)	, , , , , , , , , , , , , , , , , , ,
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1	CCS7 SIGNALING		FLORIDA	
	TERMINATION		WORKPAPE	D 2
3			PAGE 1 OF	
4			PAGE 1 OF	<u> </u>
5		A		
	DESCRIPTION	SOURCE	AMOUNT	··-·
7	<u> </u>	- COUNCE	AMOUNT	
	VENDOR A		 	
	Investment per Port		 	
	Hardware Discount Factor			
	Total Investment	Ln 9 x Ln 10	 	
	Annual Cost Factor (377C)	LITSACITIO	21.00	0.2527
	Monthly Cost Per Port	(Ln 11 x Ln 12)/12	 	0.2327
14	Wildrig Cost (el) ort	(2) 17 × 2) 12/12	 	
	VENDOR B			
	Investment per Port		 	
		(1) (0,52) /		
	Total Investment	Ln 16 x Ln 17		
	Annual Cost Factor (377C)		3	0.2527
	Monthly Cost Per Port	(Ln 18 x Ln 19)/12		<u> </u>
21	Monthly Goot of Control of Contro	<u> </u>		
	Software per Port		5.3	
	Software Discount Factor	(100043))	===	
	Total Software Expense	Ln 22 x Ln 23	2	
	Annuity Factor			0.2857
26	Equivalent Monthly Cost per Port	(Ln 24 x Ln 25)/12		
	Total Monthly Cost per Port	Ln 20 + 26		
28				
29	Port Ratio, Vendor A			0.62
	Port Ratio, Vendor B			0.38
	Average Monthly Cost per Port	(Ln13xLn29)+(Ln27xLn30)		
32				1
	Gross Receipts Tax Factor			1.0152
34				
	Total Average Monthly Cost per Port	Ln 31 x Ln 33		
-				
	Note: There is no software Port exper	ise associated with Vendor	<u> </u>	
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1 DEVELOPMENT OF CCS7 SIGNALING COST		FLORIDA
2 PER OCTET FOR STP'S AND C LINKS		WORKPAPER 4
3		PAGE 1 OF 3
4 5		
		<i>H</i>
6 DESCRIPTION	SOURCE	AMOUNT
7 STP		
8 Investment per Link Pair (Excluding Port Term.)	WP 4 Pg 3 Ln 33	
9 Company Engineering and Installation		1.1652
10 Miscellaneous Common Equipment and Power		1.0990
11 Total Investment per Link Pair (Hardware)	Lu8xLu9xLu10	
12 Land Factor		0.0023
13 Building Factor		0.0382
14 Annual Cost Factor, Hardware (377C)		0.2527
15 Annual Cost Factor, Land (20C)		0.1745
16 Annual Cost Factor, Building (10C)		0.1893
17 Annual Cost Hardware	Ln 11 x Ln 14	
18 Annual Cost Land	Ln 11 x Ln 12 x Ln 15	'
19 Annual Cost Building	Ln 11 x Ln 13 x Ln 16	
20 Annual Cost per Link Pair (Hardware) (VS)	Ln 17+Ln18+Ln19	
21 Software Expense per Link Pair (Excluding Port Termination)	WP 4 Pg 3 Ln 34	
22 Annuity Factor		0.2857
23 Equivalent Annual Cost per Link Pair (Software) (VIS)	Ln 21 x Ln 22	
24 Monthly Cost per Link Pair		
25 -Hardware, Land & Building - Volume Sensitive	Ln 20 / 12	
26 -Software - Volume Insensitive	Ln 23 / 12	
27	·	• • • •
28 Average Pair Links		112
29 Monthly Cost per Port Pair & C Link	(2x WP 5 Ln31)+(1xWP 6 Ln 19)	——————————————————————————————————————
30 Monthly Cost per Link Pair, (Volume Insensitive)	Ln 29 / Ln 28	
31 Octets per month per Link Pair	WP 7 Ln 18	2,206,310,400
32 Cost per Octet - Volume Sensitive	Ln 25/Ln 31	2,200,510,100
33 Cost per Octet - Volume Insensitive	(Ln 26 + Ln 30)/Ln 31	
34 Cost per Octet	Ln 32 + Ln 33	
		
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1 DEVELOPMENT OF CCS7 SIGNALING COST		FLORIDA	
2 PER LINK PAIR FOR STP'S		WORKPAPER 4	
3		PAGE 2 OF 3	
4	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
5		D	
6 DESCRIPTION	SOURCE	AMOUNT	
7 VENDOR A			
8 Number of Switches			42
9 Ratio to Total			0.5
10 Link Pairs (Excluding C Links)			120
11			
12 Hardware Investment			
13 Capitalized Software			
14 Engineering Investment	<u> </u>		
15 Installation Investment			
16 Hardware Discount Factor	-		
17 Software Discount Factor			
18 Engineering Discount Factor	- Americans		-dett. (
19 Installation Discount Factor			0
20 Total Hardware Investment	Ln 12 x Ln 16		
21 Total Software Investment	Ln 13 x Ln 17		
22 Total Engineering Investment	Ln 14		
23 Total Installation Investment	Ln 15	· · · · · · · · · · · · · · · · · · ·	
24 Total Investment	Sum(Ln20-Ln 23)		
25		-	22mm-4.
26 Software Expense			
27 Software Discount Factor	·		
28 Total Software Expense	Ln 26 x Ln 27		
29			
30 Investment per Link Pair (Volume Sensitive)	Ln 24/ Ln 10		
31 Software Expense per Link Pair (Volume Insensitive)	Ln 28 / Ln 10		
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I DEVELOPMENT OF CCS7 SIGNALING COST		FLORIDA
2 PER LINK PAIR FOR STP'S		WORKPAPER 4
3		PAGE 3 OF 3
4		В
5		
6 DESCRIPTION	SOURCE	AMOUNT
7 VENDOR B		
8 Number of Switches		34
9 Ratio to Total		0.45
10 Link Pairs (Excluding C Links)		94
11		
12 Hardware Investment	<u> </u>	
13 Software Investment		
14 Engineering Investment		
15 Installation Investment	Fear.	
16 Hardware Discount Factor		
17 Software Discount Factor	<u> </u>	
18 Engineering Discount Factor	- An analysisters	0
19 Installation Discount Factor		0
20 Total Hardware Investment	Ln 12 x Ln 16	
21 Total Software Investment	Ln 13 x Ln 17	
22 Total Engineering Investment	Ln 14	
23 Total Installation Investment	Ln 15	<u> </u>
24 Total Investment	Sum(Ln20-Ln23)	
25		
26 Software Expense		
27 Software Discount Factor		
28 Total Software Expense	Ln 26 x Ln 27	
29		
30 Investment per Link Pair (Volume Sensitive)	Ln 24/ Ln 10	
1 Software Expense per Link Pair (Volume Insensitive)	La 28 / La 10	
2		
3 Weighted Avg Investment per Link Pair (Volume Sensitive)	(WP4 pg 2 Ln30xLn9)+(Ln30xLn9) sitive) (WP4 pg 2 Ln31xLn9)+(Ln31xLn9)	
34 Weighted Avg Software Expense per Link Pair (Volume Insens	sitive) (WP4 pg 2 Ln31xLn9)+(Ln31xLn9)	
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1 DEVELOPMENT OF CCS7 SIGNALING CO	OST	FLORIDA
2 PER OCTET FOR STP PORTS		WORKPAPER 5
3		PAGE 1 OF 1
4		
5		
6 DESCRIPTION	SOURCE	AMOUNT
7	~	
8 VENDOR A		
9 Investment per Port		
10 Hardware Discount Factor		
11 Total Investment	Ln 9 x Ln 10	
12 Annual Cost Factor 377C		0.2527
13 Monthly Cost Per Port	(Ln 11 x Ln 12)/12	
14		
15 VENDOR B		
16 Investment per Port		
17 Hardware Discount Factor		
18 Total Investment	Ln 16 x Ln 17	
19 Annual Cost Factor 377C		0.25271
20 Monthly Cost Per Port	(Ln 18 x Ln 19)/12	0.2527
21	(Eat 10 X Eat 19)/12	
22 Software per Port		
23 Software Discount Factor		
24 Total Software Expense	Ln 22 x Ln 23	
	Ln 22 X Ln 23	0.005
25 Annuity Factor	7 04 X 00/10	0.2857
26 Equivalent Monthly Cost per Port	(Ln 24 x Ln 25)/12	· ·
27 Total Monthly Cost per Port	Ln 20 + 26	
28		
29 Port Ratio, Vendor A		0.62
30 Port Ratio, Vendor B		0.38
31 Average Monthly cost per Port	(Ln13xLn29) + (Ln27xLn30)	
32		
33 Octets per Month per Port	WP 7 Ln 18	2,206,310,400
34		
35 Cost per Octet per Port -Volume Sensitive	Ln 31/ Ln 33	
NOTE: There is no software Port expense association	ciated with Vendor A.	
PRIVATE/PROPRIETARY		
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1 211	CCS7 COS PER OCTE		CLINKS	AND SSE	ALINKS		 	WORKPAPER 6
3				1112 001	A LINKS	 		PAGE: 1 OF 1
4						 		PAGE: I OF I
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51	C LINK/S	CD A	1 INK 30	AIDAA	II EQ			
7	O LINKING	SC A	CHAIL, 30	WILL IAI	LES	<u> </u>	<u> </u>	
<u>'</u>				DCO .		<u> </u>	550	
8			E152 BB	PER	A ALL HA	14 15 45 45 45 15	REG	TOTAL
9			FIXED	MILE	MILES	INVESTMENT	ACF	ANNUAL COST
	LAND	20C	0.34	0	30	\$0.34	0.1745	\$0.06
	BUILDING		5.68		30		0.1893	\$1.42
		357C	139.23	1.45	30	\$182.73	0.2292	\$41.88
	AERIAL	822C		0.12	30		0.2021	\$0.73
14 8	BURIED	845C		0.39		\$11.70	0.1989	\$2.33
15 (UNDERGR	DUND	85C	0.15	30	\$4.50	0.2017	\$0.91
16 F	POLES	811C		0.03	30	\$0.90	0.2137	\$0.19
17 (CONDUIT	84C		0.08	30	\$2.40	0.1658	\$0.40
18	TOTAL CO	OST				\$213.65		\$47.91
19	TOTAL MO	o. cos	T					\$3.99
20 0	OCTETS/N	10		,		· · · · · · · · · · · · · · · · · · ·		2,206,310,400
	COST PER		T (VOLUM	IE SENSI	TIVE)			\$0.000000018
							1	i
I	PRIVATE	/PROP	RIETAR	Y	-			
1	Contains Pr	vate an	d/or Propri	etary Info	rmation			
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	Except Purs							

1 CCS7 SIGNALING TRANSPORT SE	ERVICE	FLORIDA
2		WORKPAPER 7
3 DEMAND		PAGE: 1 OF 1
4	-	
5		
6		
7 DESCRIPTION	SOURCE	AMOUNT
8		
9 LINK OCTET CAPACITY		
10 CCS7 bits per second		56,000
11 Bits per Octet		
12 Total octets per second	Ln 10 / Ln 11	7,000
13 Engineered Capacity		0.3
14 Total Engineered Octets per sec	Ln 12 x Ln 13	2,240
15 Seconds per busy hour		3,600
16 Total octets per busy hour	Ln 14 x Ln 15	8,064,000
17 Ratio, Avg. Calendar day to busy hour		3,001,000
18 Total Octets per month per link	Ln 16xLn17x30.4	2,206,310,400
19		
20 OCTETS - CCSAC LINKS		
21 SS7 Access MOU - 1995		78,945,825,664
22 CCSAC Links - 1995		854
23 Monthly MOU per CCSAC Link	(Ln 21/ Ln 22)/12	7,703,535
24 MOU per Message		3.0
25 Monthly Messages per CCSAC Link	Ln 23 / Ln 24	2,082,036
26 Octets per Message		125.1
27 Monthly Octets per CCSAC Link	Ln 25 x Ln 26	260,462,704
		200,702,704
		<u> </u>
PRIVATE/PROPRIETARY		
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TAB 5

SECTION 5

CCS7 SIGNALING TRANSPORT SERVICE

COST DEVELOPMENT - NONRECURRING

Nonrecurring costs are one-time costs incurred as a result of the provisioning, installing, disconnecting and completion of orders initiated by a customer request for the CCS7 Signaling Transport Service. The Nonrecurring Cost Study is performed to determine the service order, provisioning and disconnect costs associated with CCS7 Signaling Connection. Calculations for the nonrecurring costs are included in this section.

The first step in developing nonrecurring costs is to determine the cost elements to be studied. Each cost element is then described by all of the individual work functions required to provision the element. An example of a work function is developing software translations for a switch routing database.

The work functions required to provide CCS7 Signaling Connection can be grouped into five categories. These are:

- 1) Service Order
- 2) Initiate/Administer Circuit Orders
- 3) Develop Circuit Specifications
- 4) Develop Software Translations
- 5) Update Circuit Database

Work functions included in these categories range from clerical activities to installation activities.

The next step in the development of nonrecurring costs is to determine work times for each work function associated with the nonrecurring costs of CCS7 Signaling Connection. The work times of the various work groups are determined from subject matter expert inputs. Each work time estimate is made by a subject matter expert who thoroughly understands how each activity is done.

A spreadsheet model is used to incorporate the specific work functions and labor rates. In order to arrive at the nonrecurring cost for the element studied, the work times for each work function required are multiplied by the appropriate labor rate.

The basic process by which nonrecurring costs are calculated consists of combining unit work times with hourly costs of each specific service category. These labor times and service order related work times are multiplied by the directly assigned labor rates for the work groups performing the activities. Utilizing work functions, work times, and labor rates, disconnect costs are calculated in the same manner as the installation costs. Since the labor costs will occur in the future, the current labor rates are inflated to that future period in time and then discounted to the present. The discounted disconnect

cost is added to the installation cost and gross receipts tax is applied to develop the total nonrecurring cost.

The following workpaper details the cost development.

	CCS7 SIGNALING CONNECTION		FLORIDA
			WORKPAPER 1
	NON-RECURRING COST		PAGE 1 OF 1
			TAGETOFT
			
6	DESCRIPTION	SOURCE	AMOUNT
7			AWOON
- 8	SERVICE ORDER/PROVISIONING - HOURS		
9	Service Order Processing		0.60
10	Initiate/Administer Circuit Orders		4.50
11	Develop Circuit Specifications	"	2.20
12	Software Translations		1.00
13	Update Circuit Database		0.50
14			0.30
•	Service Order Processing - Disconnect		
16	Initiate/Administer Circuit Orders - Disconnect		0.60
17	Update Circuit Database - Disconnect		1.50
18			0.15
	SERVICE ORDER/PROVISIONING - LABOR CO	OCT DED HOLD 1000 1000	·
20	Service Order Processing - JFC 2300	251 PER HOUR 1990-1998	
20	Initiate/Administer Circuit Orders - JFC 470X		\$40.67
21	Develop Circuit Specifications - JFC 470X		\$35.75
22	Software Translations - JFC 432X		\$35.75
23	Software Translations - JPC 432X		\$42.05
	Update Circuit Database - JFC 27XX		\$32.40
25			
	Disconnect Factor		0.8014
27			
28	SERVICE ORDER/PROVISIONING - COST		
29	Service Order Processing	Ln 9 x Ln 20	\$24.40
30	Initiate/Administer Circuit Orders	Ln 10 x Ln 21	\$160.88
31	Develop Circuit Specifications	Ln 11 x Ln 22	\$78.65
32	Software Translations	Ln 12 x Ln 23	\$42.05
33	Update Circuit Database	Ln 13 x Ln 24	\$16.20
34			
35	Service Order Processing - Disconnect	Ln 15 x Ln 20 x Ln 26	\$19.56
36	Initiate/Administer Circuit Orders - Disconnect	Ln16 x Ln 21 x Ln 26	\$42.98
37	Update Circuit Database - Disconnect	Ln 17 x Ln 24 x Ln 26	\$3.89
38			
	Gross Receipts Tax Factor		1.0152
40			1.0152
	Total Nonrecurring Cost	Sum(Ln29-Ln37) x Ln 39	\$394.51
	Total 1 Total Court Ints Court	Sum(CALL)-LALD // X LAL S/	4354.31
	PRIVATE/PROPRIETARY		
	Contains Private and/or Proprietary Information		
	May not be used or Disclosed Outside The BellSouth	Companies	
	Except Pursuant to a Written Agreement	Companies	
	Except Fursuant to a written Agreement		

TAB 6

SECTION 6

CCS7 SIGNALING TRANSPORT SERVICE

SPECIFIC STUDY ASSUMPTIONS

The cost study for CCS7 Transport Service is based on direct incremental costing techniques that are in accordance with accepted economic theory, and equipment purchasing information.

Cost study assumptions are as follows:

Software expenses were projected to the 1996-1998 study period using Telephone Plant Indexes and investment inflation factors for their associated Digital Switching Equipment (377C).

Software expenses such as Right-To-Use fees are amortized over five years to develop an equivalent annual cost.

TAB 7

SECTION 7

FLORIDA

CCS7 SIGNALING TRANSPORT SERVICE

FACTORS AND LOADINGS

Following are the incremental annual cost factors, miscellaneous loadings and labor rates used in the Common Channel Signaling Transport Service cost study.

1996 - 1998 Directly Assigned Hourly Labor Rates (Regional):

		JFC	
Customer Point of Contact	(ICSC)	2300	\$40.67
Circuit Provisioning Center	•	470X	\$35.75
Installation and Maintenance	e - Software	432X	\$42.05
Network Services Clerical		27XX	\$32.40
Labor Inflation Rate From 1995	· ·		1.0618
Hardware Inflation Rate From 1	995 (Regional)		1.011
Amortization Factor (5 Years (7 13.2%)		0.2857
Engineering & Installation Factor	or 377C (Regional)		1.1652
Land Factor 20C (Regional)			0.0023
Building Factor 10C (Regiona	J)		0.0382
Miscellaneous Common Equipm	nent		
and Power Factor	377C (Regional)		1.0990
Gross Receipts Tax Factor (Flor	rida)		1.0152
Disconnect Factor, 5 Years			0.8014
Annual Cost Factors	(See following spread:	sheet)	

Image Table: ACFCURRENT

1995 BELLSOUTH TELECOMMUNICATIONS ACCOUNT AVERAGE ANNUAL COST FACTORS INCREMENTAL

* FOR USE IN SERVICE COST STUDIES ONLY

•	fleid_code	depreciation	acfe_com b	acfo_jno tax c	q d	acfc_mice	acfc_adval tax	admin_dir 0	ac(c_oper_exp	tot_combined
	1	•	13.2%		(a+b+c)				(e+f+g)	(d+h)
LAND	20C	0.0000	0.1118	0.0514	0.1632	0.0000	.4224=422241	0.0000		**************************************
BUILDINGS	10C, 110C, 810C	0.0302	0.1110	0.0452	0.1032	0.0040	0.0113 0.0113	0.0000	0.0113	0.1745
ANALOG ELEC SWITCH	77C, 877C, 977C	0.2629	0.0660	0.0452	0.1740	0,0040	0.0113	0.0000	0.0153 0.0323	0.1893 0.3938
DIGITAL ELEC SWITCH	377C, 887C	0.1134	0.0651	0.0302	0.2067	0.0327	0.0113	0.0000	0.0323	0.3936 0.2527
OPERATOR SYSTEMS	117C.417C	0.1063	0.0751	0.0404	0.2067	0.0087	0.0113	0.0000	0.0440	0.2327 · 0.2418
RADIO	167C, 67C, 867C, 967C	0.1063	0.0750	0.0348	0.2532	0.0142		0,0000	0.0180	
DIGTL CIRC-DDS	157C		0.0675	0.0305			0.0113			0.2787
DIGTL CIRC-PAIR GAIN	257C,D257C,F257C	0.1810	0.0636	0.0288	0.2790	0.0145	0.0113	0,0000	0.0258	0.3048
DIGTL CIRC-OTHER	357C,T357C,F357C,857C,957C	0.1134		0.0297	0.2058	0.0104	0.0113	0,0000	0.0217	0.2275
ANALOG CIRC-PAIR GAIN	457C	0.1134 0.1689	0.0638		0.2069 0.2573	0.0110	0.0113	0.0000	0.0223	0.2292
ANALOG CIRC-OTHER	57C			0.0248		0.0033	0.0113		0.0146	0.2719
PBX	158C, 258C	0.1689	0.0639		0.2610	0.0140	0.0113	0.0000	0.0253	0.2863
PUBLIC-COIN	198C, 256C	0.2296	0.0771	0.0346	0.3413	0.0368	0.0113	0.0000	0.0481	0.3894
PUBLIC-COINLESS	·	0.1483	0.0763	0.0348	0.2584	0.1972	0.0113	0.0000	0.2085	0.4679
PUBLIC-OTHER	296C, 288C 996C, 988C	0,1483	0.0763	0.0348	0.2594	0.1076	0.0113	0,0000	0.1189	0.3783
OTHER TERMINAL EOPT		0.1483	0,0763	0.0348	0.2594	0.0582	0.0113	0,0000	0.0695	0.3289
•	358C,D758C,858C,558C, 828C,928C,F958C	0.1733	0,0612	0.0359	0.2904	0.0585	0.0113	0.0000	0.0698	0.3602
SUBSCRIBER PAIR GAIN	758C,D758C,F758C	0.0000	0.0000	0.0000	0,0000	0.0000	0.0000	0,0000	0.0000	0.0000
POLES	1C, 811C	0.0671	0.0725	0.0325	0.1721	0,0303	0.0113	0,0000	0.0416	0.2137
AERIAL CA - METAL	22C, 12C, 802C	0.0917.	0.0797	0.0338	0.2052	0.0413	0.0113	0.0000	0.0528	0.2578
AERIAL CA - FIBER	822C, 812C, 882C, 982C, D22C, F22C, T22C, D12C, F12C, T12C	9,0867	0.0784	0.0347	0.1798	0,0110	0.0113	0.0000	0.0223	0.2021
UNGROUND CA - METAL	5C, 805C	0.1036	0.0613	0.0342	0.2191	0.0255	0.0113	0.0000	0.0368	0.2559
UNGROUND CA - FIBER	85C,885C,985C,D5C,F5C,T5C	0.0626	0.0800	0.0958	0.1784	0.0120	0.0113	0.0000	0.0233	0.2017
BURIED CA - METAL	45C, 846C	0.0876	0.0809	0.0354	0.2039	0.0417	0.0113	0.0000	0.0530	0.2569
BURIED CA - FIBER	845C,856C,956C,045C, F45C,T45C	0.0585	0.0616	0.0367	0.1768	0.0106	0.0113	0.0000	0.0221	0.1989
SUBMARINE CA-METAL	6C, 806C	0.0860	0.0814	0.0366	0.2040	0.0106	0.0113	0.0000	0.0219	0.2259
SUBMARINE CA-FIBER	86C.886C.D6C.F6C.T6C	0.0860	0.0614	0.0355	0.2029	0.0106	0.0113	0.0000	0.0219	0.2248
INTRBLD NTWK-METAL	52C	0.0661	0.0785	0.0340	0.1786	0.0265	0.0113	0.0000	0.0378	0.2164
INTRBLD NTWK-FIBER	852C,D52C,F52C,T52C	0.0661	0.0785	0,0340	0.1786	0.0265	0.0113	0.0000	0.0378	0.2164
CONDUIT SYSTEMS	4C, 84C, 94C	0.0242	0.0877	0.0401	0.1520	0,0025	0.0113	0.0000	0.0138	0,1658