## ORIGINAL

1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		DIRECT TESTIMONY OF D. DAONNE CALDWELL
3		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4		DOCKET NO. 981052-TP
5		<b>DECEMBER 3, 1998</b>
6		
7	Q.	PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.
8		
9	A.	My name is D. Daonne Caldwell. My business address is 675 W. Peachtree St.,
10		N.E., Atlanta, Georgia. I am a Director in the Finance Department of BellSouth
11		Telecommunications, Inc. (hereinafter referred to as "BellSouth" or "the
12		Company"). My area of responsibility relates to economic costs.
13		
14	Q.	PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL
14 15	Q.	PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.
	Q.	
15		
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1 moved to the Pricing and Economics Department in 1984 where I developed 2 methodology for service cost studies until 1986 when I accepted a rotational 3 assignment with Bellcore. While at Bellcore, I was responsible for development 4 and instruction of the Service Cost Studies Curriculum including courses such as 5 "Concepts of Service Cost Studies", "Network Service Costs", "Nonrecurring 6 Costs", and "Cost Studies for New Technologies". In 1990, I returned to 7 BellSouth and was appointed to a position in the cost organization, which is now a 8 part of the Finance Department, with the responsibility of managing the 9 development of cost studies for transport facilities, both loop and interoffice. My 10 current responsibilities encompass witnessing in cost-related dockets, cost 11 methodology development, cost study filing coordination, and interfacing with 12 regulatory organizations.

13

#### 14 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

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16 A. The purpose of my testimony is to present the cost study results for the 17 development and implementation of the Operational Support Systems (OSS) 18 Electronic Interfaces as well as cost study results for both electronic and manual 19 order processing. Additionally, I describe the cost methodology used in these 20 studies. The study results are filed with this testimony as Exhibit DDC-1 and 21 DDC-2. Exhibit DDC-1 provides an overview to the study process, including service descriptions, cost element descriptions, models, study technique, specific 22 23 study assumptions, and a list of acronyms. Exhibit DDC-2 contains the study 24 results and the input files to the TELRIC Calculator©.

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2	Q.	PLEASE PROVIDE A BRIEF DESCRIPTION OF THE OSS
3		ELECTRONIC INTERFACES AND ORDER PROCESSING COST
4		ELEMENTS.
5		
6	A.	The OSS Electronic Interfaces are the systems BellSouth developed specifically to
7		provide Alternative Local Exchange Carriers (ALECs) with the ability to transmit
8		a local service request (LSR) electronically. These interfaces allow the ALEC to
9		mechanically access BellSouth's existing order processing systems. Both resale
10		and unbundled network element (UNE) LSRs can be transmitted via the interfaces.
11		
12		The OSS Electronic Interfaces – Development and Implementation cost element
13		includes the labor costs for the systems development and software costs.
14		
15		LSR processing falls into two categories, electronic and manual. The electronic
16		processing reflects the ongoing cost associated with the OSS Electronic Interfaces
17		and the Local Service Center (LCSC) labor required to handle a LSR which falls
18		out, i.e., a LSR that does not pass through the interfaces completely. Manual order
19		processing is the cost BellSouth incurs to handle a LSR manually. In the manual
20		process, a BellSouth LCSC service representative interfaces with the ALEC
21		directly, not using the OSS Electronic Interfaces.
22		
23	Q.	WHAT TYPES OF COSTS ARE REFLECTED IN THE COST STUDIES?
24		
25	A.	The cost studies reflect both recurring and nonrecurring costs. Recurring costs

1

1 include both capital and non-capital costs. Capital costs are associated with the 2 purchase of an item of plant, i.e., an investment. They consist of depreciation, cost 3 of money, and income tax. Non-capital recurring costs are expenses associated 4 with the use of an investment. These operating expenses consist of plant-specific 5 expenses, such as maintenance, ad valorem taxes and gross receipts taxes. The 6 Electronic Interface studies include other recurring expenses such as ongoing 7 application software maintenance and labor to support the ongoing operations of providing this service. 8 9 Nonrecurring costs include one-time costs for the development and 10 11 implementation of the systems. They include labor costs for systems planning, 12 design, programming, testing, and implementation, in addition to software 13 expenses. Additionally, LCSC labor for manually handling the LSR for both 14 fallout and manual ordering is included in the ongoing nonrecurring costs. 15 Q. WHAT COST METHODOLOGY IS USED IN THE COST STUDIES? 16 17 A. The cost studies are based on the cost study methodology accepted by this 18 19. Commission in Order No. PSC-98-0604-FOF-TP in Docket Nos. 960757-TP, 960833-TP and 960846-TP dated April 29, 1998. This Order established rates for 20 numerous UNEs, ranging from 2-Wire Analog Loop Distribution to Physical 21 Collocation. On page 12 of the Order, the Commission ordered rates that "cover 22 BellSouth's Total System (Service) Long-run Incremental Costs (TSLRIC) and 23 provide some contribution toward joint and common costs." 24

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1	Q.	PLÉASE PROVIDE SOME BACKGROUND TO ORDER NUMBER PSC-
2		98-0604-FOF-TP.
3		
4	A.	On November 13,1997, BellSouth filed cost studies in support of prices for UNEs
5		for which the Commission had previously established interim rates. The studies
6		were filed electronically with complete documentation. With these studies,
7		BellSouth introduced a new cost model, the TELRIC Calculator©. The TELRIC
8		Calculator© converts material prices and labor work times to cost. The
9		Commission accepted the TELRIC Calculator© as a viable model. However, the
10		Commission did make adjustments to the inputs filed by BellSouth.
11		
12	Q.	ARE THE ADJUSTMENTS TO BELSOUTH'S INPUTS ORDERED BY
13		THE COMMISSION IN ORDER NO. PSC-98-0604-FOF-TP
14		INCORPORATED IN THE COST STUDY RESULTS FILED IN EXHIBIT
15		DDC-1?
16		
17	A.	Yes. The input adjustments, which are relevant to the cost elements in this
8		proceeding, are included. The cost studies that supported the results in Exhibit
19 <sup>,</sup>		DDC-1 include the Commission-ordered cost of money, depreciation lives, tax
20		factors, and shared and common factors.
21		
22	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.
23		
24	A.	The cost studies that support the results filed in this proceeding determine the total
25		service long run incremental costs plus shared and common costs specific to

1		Florida for the development of the OSS Electronic Interfaces and ongoing
2		electronic and manual order processing. The costs were developed using the basic
3		study methodology previously approved by this Commission.
4		
5	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
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7	A.	Yes.
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#### Overview

- F.1.61 OSS Electronic Interface, Per Local Service Request Development and Implementation
- F.1.62 OSS Electronic Interface, Per Local Service Request Ongoing Processing
- F.1.7 Manual Processing, Per Local Service Request

#### **Service Description**

I. OSS Electronic Interface (F.1.61 and F.1.62):

#### A. Interactive Ordering (Pre-ordering and Ordering):

BellSouth will provide Alternative Local Exchange Carriers (ALECs) access via mechanized interfaces to certain operational support systems (OSSs). The interactive Pre-Order activities revolve around telephone number reservation, address validation, switch feature and service verification, and due date calculation. ALEC access to Customer Service Records (CSRs) will allow ALECs to increase the accuracy of orders by using existing name, address, directory, and line features and service options information.

The Order processes facilitate interactive order entry, order status inquiry, and supplemental order entry. The ALECs will be allowed to access the BellSouth Internal Network with a single log-on. The ALEC is then authorized to access the Electronic Interfaces to perform Interactive Pre-Ordering and Ordering functions. The Electronic Interfaces manage the sending and receiving of data to and from the BellSouth Operational Support Systems (OSSs).

To complete either Interactive Pre-Ordering or Ordering, several systems are typically accessed. The output from one system is often the input to the next. By building an interface in front of the Legacy Systems (BellSouth existing systems), the ALEC is not required to use manual processes to move the input from one system to another. Two primary interfaces, Telecommunications Access Gateway (TAG) and Local Exchange Navigation System (LENS), process Pre-Ordering Transactions and Local Service Requests (LSRs) and both pass the transactions to the Legacy Systems and the LSRs to Local Exchange Ordering (LEO), the database system for ALEC service

#### Overview

orders. Electronic Data Interchange (EDI) is another key interface available to ALECs to submit LSRs directly into LEO. The Legacy Systems process the transactions and provide the results back to LENS so it can be presented to the ALECs. LEO passes LSRs to the Local Exchange Service Order Generator (LESOG) and the BellSouth Service Order Generator (BSOG) so a mechanized service order can be generated and sent to Service Order Communications System (SOCS) for processing.

#### B. Trouble Maintenance and Repair:

Trouble Entry encompasses two newly developed interfaces, Trouble Analysis Facilitation Interface (TAFI) and Electronic Communications Trouble Administration (ECTA) systems. These interfaces allow ALECs access to BellSouth's online trouble maintenance and reporting systems. ALECs can mechanically process their customers' local access plain old telephone service (POTS) trouble reports with the same capabilities as the Call Receipt function performed in BellSouth's Residence Repair Center (RRC) and Business Repair Center (BRC). Trouble reports that cannot be resolved via the ALEC TAFI or ECTA processes will be forwarded to the appropriate Maintenance Administrator (MA) screening pool for manual analysis and processing. This is identical to the procedures employed by the BellSouth RRC and BRC organizations.

#### II. Manual LSR Processing (F.1.7):

BellSouth will provide the ALECs the option of submitting LSRs manually. LSRs not submitted through a BellSouth Electronic Interface, as described earlier, will be considered a manual LSR. The ALEC will complete an Industry Standard Open Billing Forum (OBF) Version 2 Form or an approved BellSouth form. LSRs received manually by the Local Carrier Service Center (LCSC) are entered into the Local Order Number (LON) system. A Service Representative in the LCSC will manually enter the LSR information into BellSouth's Legacy (existing) service order systems. Once the Firm Order Confirmation (FOC) status is returned from the systems, this notification is faxed to the ALEC.

#### Overview

#### **Cost Element Descriptions:**

### F.1.61 OSS Electronic Interface, Per Local Service Request – Development and Implementation:

This cost element includes the nonrecurring costs for development of project requirements, program development and enhancements, and communications implementation. The computer software right-to-use fees are also included. Additionally, nonrecurring expenses to support the Electronic Interfaces are included. Support is required for the EDI, LENS, TAG, LEO, LESOG and BSOG systems to insure the proper development and implementation of ALEC functional services of Interactive Preordering, Ordering, and the TAFI and ECTA systems for Trouble Maintenance and Repair.

### F.1.62 OSS Electronic Interface, Per Local Service Request – Ongoing Processing:

This cost element includes the total BellSouth labor, contracting services' labor, capital related, and computer software and hardware maintenance expenses for processing the LSRs and maintaining the Electronic Interfaces. These costs are composed of programming maintenance; communications and hardware support in addition to the capital related expenses. They also include the labor expense incurred by BellSouth's Local Carrier Service Center (LCSC) to manually process Local Service Requests (LSRs) that were submitted through the OSS Electronic Interface but dropped out of the mechanized service order flow. Additionally, the ongoing expenses to support the Electronic Interfaces are included. The support is required for the EDI, LENS, TAG, LEO, LESOG and BSOG systems to insure the ongoing ALEC functional services of Interactive Preordering, Ordering, and the TAFI and ECTA systems for Trouble Maintenance and Repair.

#### F1.1.7 Manual Processing, per Local Service Request

This cost element consists of the nonrecurring labor expense incurred by BellSouth's Local Carrier Service Center (LCSC) to process Local Service Requests (LSR) that are not submitted via a BellSouth Electronic Interface.

#### Overview

#### **Models**

Microsoft Excel spreadsheets were used to perform these cost analyses. The TELRIC Calculator© was used to calculate the costs.

#### **Study Technique**

#### **Electronic Interfaces:**

The recurring costs are based on the labor requirements for BellSouth personnel and contractors responsible for the ongoing support of the computer applications, data exchange, computer hardware, internal communications network and the mechanized service order process. The vendor-installed prices for the incremental investment are identified along with their associated hardware and software maintenance expenses.

The nonrecurring costs are based on the labor requirements for BellSouth personnel and contractors responsible for developing, enhancing and implementing the computer applications, the exchange of data, internal communications network and the mechanized service order process. The software right-to-use fees are also included.

The cost study sums all the various labor hours by functional category and paybands. Vendor installed prices for investments are summed by Field Reporting Codes (FRCs). Other expenses or additives, such as hardware and software maintenance, are summed by each expense category. The resulting total labor hours, investments and other expenses are divided by the projected cumulative number of local service requests and processed through the TELRIC Calculator©.

#### Manual LSR Processing:

For manually submitted ALEC LSRs, the nonrecurring costs are based on the portion of a labor hour consumed on average by a Service Representative in the LCSC to manually handle a LSR. The labor hours are processed through the TELRIC Calculator©.

#### Overview

#### **Specific Study Assumptions**

#### **OSS Electronic Interface:**

- Cost is valid from 1999 through 2001for the Electronic Interface elements.
- Nonrecurring developmental and maintenance costs are included in the Electronic Interface studies.
- The OSS Electronic Interface, Per LSR-Development and Implementation element includes nonrecurring costs associated with interface development. The OSS Electronic Interface, Per LSR-Ongoing Processing includes the recurring capital and non-capital related expenses and maintenance. Additionally, the nonrecurring costs associated with fall-out orders are included in this element.
- ALECs can access LENS via Dial-up, LAN-to-LAN or the Internet. TAG access is via LAN-to-LAN or the Internet. They can access EDI via a Dial-up, a dedicated facility using LAN-to-LAN CONNECT:DIRECT data transmission software or via the Harbinger Value-Added Network (VAN). LAN-to-LAN and Dial-up are also available for Trouble Maintenance and Repair.
- The ALEC will be responsible for all charges associated with the ordering, installation of private line or dial-up circuits, related equipment and associated toll charges relative to data transmission. Therefore, these costs are not included in these studies.
- This study does not include any expenses associated with the Toll charges associated with the ALEC accessing BellSouth's internal network.
- The 1996, 1997 and 1998 capital added and other expenses relative to this project were identified and included in the Electronic Interface study. In this study, equipment that was added in 1996 will be recovered in 4.4 years ending in 2000, equipment that was installed in 1997 will also be recovered in 4.4 years ending in 2001. Four years of capital-related costs for equipment added in 1998 will be recovered through 2001. Only three years of the capital related cost for equipment placed in 1999 will be recovered, only two years of the capital related cost for equipment placed in 2000 will be recovered and only one year of the capital related cost for equipment installed in 2001 will be recovered.
- The fall-out probability utilized is 6.67%. September 1998 data demonstrates that the current fall-out rate is 15%. Improvement to a rate of 10% in 1999 and of 5% in 2000 is anticipated. Since this rate element represents recovery from 1999

#### Overview

through 2001, the average of the three years was assumed in the study ((10%+5%+5%)/3=6.67%).

• The labor expense for LSRs that have been processed through the mechanized systems and fall-out is calculated by multiplying the fall-out probability of 6.67% by the average time of 25 minutes or .42 hours to work a LSR manually in the LCSC.

#### Manual LSR Processing:

- Cost is valid from 1998 through 2000 for the manual processing element.
- The 25 minutes or .42 hours reflects the average time to handle a LSR manually. This figure is based upon year-to-date September, 1998 statistics from the LCSC for handling manual ALEC LSRs. This time requirement is projected to continue.

#### Overview

### Operational Support Systems(OSS) List of Acronyms

Process of Assembly and Edit of Messages in CRIS	ALPHA
Automatic Message Accounting	AMA
Automated Repair Service Bureau	ARSB
Application for TN Load, Administration and Selection	ATLAS
BellSouth File Transfer System	BFTS
BellSouth Open Systems Interconnect Platform	BOSIP
Business Repair Center	BRC
BeliSouth Data Network	BSDN
BellSouth Service Order Generator	BSOG
Carrier Access Billing System	CABS
Central Office Feature File Interface	COFFI
Front-end Communications Equipment which hosts CONNECT:DIRECT	COMTEN
Data Transmission Software Facility leased from Sterling, Inc.	CONNECT:DIRECT
Commercial Off-The-Shelf Software (i.e. PC Microsoft Office)	COTS
Customer Records Information System	CRIS
Customer Records Information System-Message Processing	CRIS-MP
Central System Administration	CSA
Customer Service Record	CSR
Dial-up Equipment to integrate analog modem & ISDN remote access to BOSIP	CSX
Database Administrator	DBA
Interconnect Platform part between the Front-End Equipment and BOSIP	DMZ
Direct Order Entry/DOE Support Analysis	DOE/DSAP
Electronic Communications	EC
Electronic Communications-Common Presentation Manager/Trouble Administration	EC-CPM/TA
Electronic Communications Trouble Administration	ECTA
Electronic Data Interchange	EDI

### **Overview**

EDI Cente	EDIC
External Gateway Access( for CLEC Internet, LAN-to-LAN & Dial-up)	EGA
R Exchange Message Record	EMR
S Electronic Toll Collection System	ETCS
T Exchange Access Control Tracking	EXACT
S Facility Assignment and Control System	FACS
Fiber Distributed Distribution Interface	FDDI
E Full-time Equivalen	FTE
Hardware Maintenance Group(ITO	HMG
M Internal Communications Manage	ICM
S Interconnection Services (BST Customer Operations Unit	ICS
x Database Manager Software	Informix
Information Technology Organization	ITO
Information Technology Operations Cente	ITOC
P Information Technology Operation	ITOP
S Job Management Operation System	JMOS
N Local Area Networ	LAN
C Local Carrier Service Cente	LCSC
P LAN Documentation Packag	LDP
Y Baseline BellSouth Operational Support Systems	LEGACY
S Local Exchange Navigational System	LENS
D Local Exchange Orderin	LEO
3 Local Exchange Service Order Generate	LESOG
T LIST Information System	LIST
S Loop Maintenance Operations System	LMOS
P Local Number Portabilit	LNP
A Local System Administrato	LSA
R Local Service Reques	LSR
S Mechanized Accounts Payable System	MAPS
H System that translates S.O. data to switch provisioning messages	MARCH
T Mechanized Loop Testin	MLT

#### Overview

A Multi Media Acces	MMA
G Network Security Work Grou	NSWG
C Operations Analysis and Control Cente	OACC
C Other Charges and Credits(bill entry	OC&C
OLEC Daily Usage File(Billing	ODUF
C On-line Pending Edit to CRIS	OPEC
M Operations Support Group/Project Manage	OSG/PM
M Outside Plant Construction Management System	OSPCM
S Products/Services Inventory Management System	P/SIMS
N Protected Datakit Networ	PDN
R Computer based monitoring system of messages & cable alarms	PREDICTOR
Quality Assurance	QA
Residence Repair Cente	RRC
G Regional Street Address Guid	RSAG
C Real-time Operations Cente	RTOC
IT Systems Integration Interface Tear	SI/IT
Subject Matter Expe	SME
System Maintenance Facility (IBM Software	SMF
Secure Network Element Contract Serve	SNECS
Service Order Communication System	socs
Service Order Negotiation Generation System	SONGS
FI Trouble Analysis Facilitation Interfac	TAFI
G Telecommunications Access Gatewa	TAG
Operating System Softwar	UNIX
N Value Added Netwo	VAN
Work Force Administration/Contr	WFA

BellSouth Telecommunications, Inc. FPSC Docket No. 981052-TP Exhibit DDC-2 Page 1 of 13

) <sub>1</sub>

# BellSouth TELRIC Calculator Unbundled Network Cost Elements Summary Report Florida TSLRIC Plus Shared and Common

12/1/9	8		Non	Per LSR	
	Cost Element	Recurring	Recurring	<u>Total</u>	
F.0	Operations Support Systems (OSS)				
F.1	Operational Support Systems (OSS)				
F.1.61	OSS Electronic Interface, per local service request - Development & Implementation		\$2.46	\$2.46	
F.1.62	OSS Electronic Interface, per local service request - Ongoing Processing	\$2.98	\$1.34	\$4.32	
F.1.7	OSS Manual Processing, per local service request		\$20.08	\$20.08	

Florida

F.1.61 - OSS Electronic Interface, per local service request - Development & Implementation

12/1/98

#### **Nonrecurring Cost**

	Direct Cost	Shared Cost	TELRIC
Nonrecurring Cost Development Sheet Col H	\$0.4939323	\$0.000000	\$0.4939323
Other Expenses			
Sys Dev/Enhance/Implem	\$1.3054805	\$0.000000	\$1.3054805
Other Dev	\$0.2942844	\$0.000000	\$0.2942844
Software RTU Fees	\$0.0779566	\$0.000000	\$0.0779566
Testing, Requirements Dev	\$0.0684311	\$0.000000	\$0.0684311
Billing Proj Mgmnt	\$0.0006334	\$0.000000	\$0.0006334
Billing Dev	\$0.0026785	\$0.000000	\$0.0026785
Trbl M&R Sys Dev	\$0.0421274	\$0.000000	\$0.0421274
Trbl M&R Sys Oth Dev	\$0.0020673	\$0.000000	\$0.0020673
Trbl M&R Sys SW RTU Fee	\$0.0156247	\$0.000000	\$0.0156247
Trbl M&R Sys Requirements	\$0.0041654	\$0.000000	\$0.0041654
Total Cost	\$2.3073815	\$0.000000	\$2.3073815
Gross Receipts Tax Factor		X	1.0137
Cost (including Gross Receipts Tax)			\$2.3389857
Common Cost Factor		X	1.0512
Nonrecurring Economic Cost		-	\$2.4587418

### Florida F.1.61 - OSS Electronic Interface, per local service request - Development & Implementation

12/1/98			Α	В	С	D=AxC	E=BxC	F	G=ExF	H=D+G
	1501	, , , , , , , , , , , , , , , , , , ,		<b>.</b>	Direct			Disconnect	Discounted	
<b></b>	JFC/	JFC/Payband	Installation	Disconnect	Labor	Install	Disconnect	Discount	Disconnect	Direct
Function	Payband	Description	Worktime	Worktime	Rate	Cost	Cost	Factor	Cost	Cost
Sys Dev/Enhance/Implem	ITPB59	IT Pay Band 59	0.001473	0.000000	\$57.92	\$0.0852981	\$0.0000000	1.0000	\$0.0000000	\$0.0852981
Sys Dev/Enhance/Implem	ITPB58	IT Pay Band 58	0.004052	0.000000	<b>\$</b> 52.44	\$0.2125119	\$0.0000000	1.0000	\$0.0000000	\$0:2125119
Sys Dev/Enhance/Implem	ITPB56	IT Pay Band 56	0.000100	0.000000	\$46.03	\$0.0045907	\$0.0000000	1.0000	\$0.0000000	\$0.0045907
Billing Proj Mgmnt	ITPB59	IT Pay Band 59	0.000017	0.000000	\$57.92	\$0.0009928	\$0.0000000	1.0000	\$0.0000000	\$0.0009928
Billing Proj Mgmnt	ITPB58	IT Pay Band 58	0.000035	0.000000	\$52.44	\$0.0018523	\$0.0000000	1.0000	\$0.0000000	\$0.0018523
Billing Team Rep	FRPB58	Finance/Regulatory Pay Band 58	0.000005	0.000000	<b>\$48.12</b>	\$0.0002450	\$0.0000000	1.0000	\$0.0000000	\$0.0002450
Proj Mgmnt	MKPB61	Marketing Pay Band 61	0.000405	0.000000	<b>\$</b> 67. <b>8</b> 5	\$0.0274790	\$0.0000000	1.0000	\$0.0000000	\$0.0274790
Proj Mgmnt	MKPB59	Marketing Pay Band 59	0.001030	0.000000	\$55.17	\$0.0568175	\$0.0000000	1.0000	\$0.0000000	\$0.0568175
Proj Mgmnt	MKPB58	Marketing Pay Band 58	0.000439	0.000000	\$49.39	\$0.0216776	\$0.0000000	1.0000	\$0.0000000	\$0.0216776
Proj Mgmnt	MKPB56	Marketing Pay Band 56	0.000401	0.000000	\$43.28	\$0.0173718	\$0.0000000	1.0000	\$0.0000000	\$0.0173718
Trbl M&R Sys Dev/Implem	ITPB59	IT Pay Band 59	0.000182	0.000000	\$57.92	\$0.0105667	\$0.0000000	1.0000	\$0.0000000	\$0.0105667
Trbl M&R Sys Dev/Implem	ITPB58	IT Pay Band 58	0.000125	0.000000	\$52.44	\$0.0065375	\$0.0000000	1.0000	\$0.0000000	\$0.0065375
Trbi M&R Sys Dev/Implem	ITPB57	IT Pay Band 57	0.000008	0.000000	\$47.82	\$0.0003974	\$0.0000000	1.0000	\$0.0000000	\$0.0003974
Trbl M&R Sys Dev/Implem	NWPB58	Network Pay Band 58	0.000037	0.000000	\$50.31	\$0.0018607	\$0.0000000	1.0000	\$0.0000000	\$0.0018607
Trbl M&R Sys Dev/Implem	MKPB58	Marketing Pay Band 58	0.000017	0.000000	\$49.39	\$0.0008210	\$0.0000000	1.0000	\$0.0000000	\$0.0008210
El Reg/Dev Criteria	MKPB58	Marketing Pay Band 58	0.000391	0.000000	\$49.39	\$0.0193183	\$0.0000000	1.0000	\$0.0000000	\$0.0193183
El Test Plans Dev	MKPB57	Marketing Pay Band 57	0.000568	0.000000	\$45.08	\$0.0255941	\$0.0000000	1.0000	\$0.0000000	\$0.0255941
		<del>-</del> -							Total	0.493932286

					TELRIC			Disconnect	Discounted	
	JFC/	JFC/Payband	Installation	Disconnect	Labor	instali	Disconnect	Discount	Disconnect	
Function	Payband	Description	Worktime	Worktime	Rate	Cost	Cost	Factor	Cost	TELRIC
Sys Dev/Enhance/Implem	ITPB59	IT Pay Band 59	0.001473	0.000000	\$57.92	\$0.0852981	\$0.0000000	1.0000	\$0.000000	\$0.0852981
Sys Dev/Enhance/Implem	ITPB58	IT Pay Band 58	0.004052	0.000000	<b>\$52.44</b>	\$0.2125119	\$0.0000000	1.0000	\$0.0000000	\$0.2125119
Sys Dev/Enhance/Implem	ITPB56	IT Pay Band 56	0.000100	0.000000	\$46.03	\$0.0045907	\$0.0000000	1.0000	\$0.0000000	\$0.0045907
Billing Proj Mgmnt	ITPB59	IT Pay Band 59	0.000017	0.000000	\$57.92	\$0.0009928	\$0.0000000	1.0000	\$0.0000000	\$0.0009928
Billing Proj Mgmnt	ITPB58	IT Pay Band 58	0.000035	0.000000	\$52.44	\$0.0018523	\$0.0000000	1.0000	\$0.0000000	\$0.0018523
Billing Team Rep	FRPB58	Finance/Regulatory Pay Band 58	0.000005	0.000000	\$48.12	\$0.0002450	\$0.0000000	1.0000	\$0.0000000	\$0.0002450
Proj Mamnt	MKPB61	Marketing Pay Band 61	0.000405	0.000000	\$67.85	\$0.0274790	\$0.0000000	1.0000	\$0.0000000	\$0.0274790
Proj Mgmnt	MKPB59	Marketing Pay Band 59	0.001030	0.000000	\$55.17	\$0.0568175	\$0.0000000	1.0000	\$0.0000000	\$0.0568175
Proj Mgmnt	MKPB58	Marketing Pay Band 58	0.000439	0.000000	\$49.39	\$0.0216776	\$0.0000000	1.0000	\$0.0000000	\$0.0216776
Proj Mgmnt	MKPB56	Marketing Pay Band 56	0.000401	0.000000	\$43.28	\$0.0173718	\$0.0000000	1.0000	\$0.0000000	\$0.0173718
Trbi M&R Sys Dev/Implem	ITPB59	IT Pay Band 59	0.000182	0.000000	\$57.92	\$0.0105667	\$0.0000000	1.0000	\$0.0000000	\$0.0105667
Trbl M&R Sys Dev/Implem	ITPB58	IT Pay Band 58	0.000125	0.000000	<b>\$</b> 52.44	\$0.0065375	\$0.0000000	1.0000	\$0.0000000	\$0.0065375
Trbl M&R Sys Dev/Implem	ITPB57	IT Pay Band 57	0.000008	0.000000	\$47.82	\$0.0003974	\$0.0000000	1.0000	\$0.0000000	\$0.0003974
Trbl M&R Sys Dev/Implem	NWPB58	Network Pay Band 58	0.000037	0.000000	\$50.31	\$0.0018607	\$0.0000000	1.0000	\$0.0000000	\$0.0018607
Trbl M&R Sys Dev/Implem	MKPB58	Marketing Pay Band 58	0.000017	0.000000	\$49.39	\$0.0008210	\$0.0000000	1.0000	\$0.0000000	\$0.0008210
El Reg/Dev Criteria	MKPB58	Marketing Pay Band 58	0.000391	0.000000	\$49.39	\$0.0193183	\$0.0000000	1.0000	\$0.0000000	\$0.0193183
El Test Plans Dev	MKPB57	Marketing Pay Band 57	0.000568	0.000000	\$45.08	\$0.0255941	\$0.0000000	1.0000	\$0.0000000	\$0.0255941
		-							Total	0.493932286

Florida
F.1.62 - OSS Electronic Interface, per local service request - Ongoing Processing

12/1/98	٠.	Volume Sensitive		<u> </u>	olume Insensitive	
	Direct Cost	Shared Cost	TELRIC	Direct Cost	Shared Cost	TELRIC
Recurring Cost Devel. Sheets Cols L, N, & O	\$1.3761815	\$0.000000	\$1.3761815			\$0.0000000
Labor Expenses						
LENS Sys Support	\$0.0000000	\$0.000000	\$0.0000000	\$0.0013457	\$0.000000	\$0.0013457
LEO Sys Support	\$0.0000000	\$0.000000	\$0.0000000	\$0.0032884	\$0.000000	\$0.0032884
TAG Sys Support	\$0.0000000	\$0.0000000	\$0.0000000	\$0.0027433	\$0.000000	\$0.0027433
Trbl M&R Sys Support	\$0.0000000	\$0.0000000	\$0.0000000	\$0.0007183	\$0.000000	\$0.0007183
Trbl Resolut Units Supp	\$0.0000000	\$0.000000	\$0.0000000	\$0.0014906	\$0.000000	\$0.0014906
Supp/Update Rate Database	\$0.0000000	\$0.000000	\$0.0000000	\$0.0006035	\$0.000000	\$0.0006035
Test/Bill Verify/Guides	\$0.0000000	\$0.0000000	\$0.0000000	\$0.0056240	\$0.000000	\$0.0056240
Billing Prgm Mtce	\$0.0000000	\$0.000000	\$0.0000000	\$0.0021060	\$0.000000	\$0.0021060
Commission Coordination	\$0.0000000	\$0.0000000	\$0.0000000	\$0.0221007	\$0.000000	\$0.0221007
ICS Operations Support	\$0.0000000	\$0.000000	\$0.000000	<b>\$</b> 0.1273675	\$0.000000	\$0.1273675
Other Expenses						
Application Mtce	\$0.0000000	\$0.000000	\$0.0000000	\$0.9059652	\$0.0000000	\$0.9059652
Other Support Costs	\$0.0000000	\$0.000000	\$0.0000000	\$0.1200191	\$0.000000	\$0.1200191
Software Mtce	\$0.0000000	\$0.000000	\$0.0000000	\$0.0089337	\$0.0000000	\$0.0089337
Hardware Op Supp	\$0.000000	\$0.0000000	\$0.0000000	\$0.1440487	\$0.000000	\$0.1440487
Hardware Mtce	\$0.0000000	\$0.000000	\$0.0000000	\$0.0314157	\$0.000000	\$0.0314157
Trbi M&R Appl Mtce	\$0.0000000	\$0.000000	\$0.0000000	<b>\$</b> 0.0249672	\$0.000000	\$0.0249672
Trbl M&R Oth Support	\$0.0000000	\$0.000000	\$0.0000000	\$0.0049078	\$0.000000	\$0.0049078
Trbl M&R Software Mtce	\$0.0000000	\$0.000000	\$0.0000000	\$0.0004382	\$0.000000	\$0.0004382
Trbl M&R Hardware Op Supp	\$0.0000000	\$0.000000	\$0.0000000	\$0.0127138	\$0.0000000	\$0.0127138
Trbl M&R Hardware Mtce	\$0.0000000	\$0.0000000	\$0.0000000	\$0.0029920	\$0.0000000	\$0.0029920
Total Cost	\$1.3761815	\$0.000000	\$1.3761815	\$1.4237894	\$0.000000	\$1.4237894
Gross Receipts Tax Factor		X	1.0137		X	1.0137
Cost (including Gross Receipts Tax)			\$1,3950311		<del>**=</del>	\$1,4432911
Common Cost Factor		Х	1.0512		X	1.0512
Economic Cost		=	\$1.4664567		_	\$1.5171876

Total Economic Cost: \$2.9836442

BellSouth Telecommunications, Inc. FPSC Docket No. 981052-TP Exhibit DDC-2 Page 5 of 13

12/1/98			Α	В	С=АхВ	D1	D2	D3	D4	D5	E=Cx(D1xD2 xxD5)	F	G=ExF
	•						In-Plant	Factors (Defa	ult = 1)			Supporting	
						Plug-in						Equipment	
		Sub		Inflation	Adjusted	inventory	Mat'i	Telco	Plug-in	Hardwire	In-Plant	&/or Power	Total
	FRC	FRC	<u>Material</u>	<b>Factor</b>	<b>Material</b>	<b>Factor</b>	Factor	Factor	<u>Factor</u>	Factor	<u>Investment</u>	Lordina	Investment
General Purpose Computers/Data Cntr Env	530C	00	\$3.2901364	1.0000	\$3.2901364	1.0000	1.0000	1.0000	1.0000	1.0000	\$3.2901 <b>364</b>	1.0000	\$3.2901364
General Purpose Computers/Data Controller & Work Sta Equip	630C	00	\$0.0417237	1.0000	\$0.0417237	1.0000	1.0000	1.0000	1.0000	1.0000	<b>\$</b> 0.0417237	1.0000	\$0.0417237

BellSouth Telecommunications, Inc. FPSC Docket No. 981052-TP Exhibit DDC-2 Page 6 of 13

Land - COE Buildings - COE	FRC - 20C 10C		•	= Sum of Col C = Sum of Col E							
12/1/98			A=Prev Page Col G	В	C=(AxB)	D	E=(AxD)	F	G=(AxF)	н	I=(AxH)
		Sub		Land	Land	Building	Building	Pole	Pole	Conduit	Conduit
	FRC	FRC	Investment	Factor	Investment	Factor	Investment	Factor	Investment	Factor	Investment
General Purpose Computers/Data Cntr Env	530C	00	\$3.2901364	0.0229	\$0.0755059	0.4073	\$1.3399617	0.0000	\$0.0000000	0.0000	\$0.0000000
·											
General Purpose Computers/Data Controller & Work Sta Equip	630C	00	\$0.0417237	0.0229	\$0.0009575	0.4073	\$0.0169927	0.0000	\$0.0000000	0.0000	\$0.0000000
				:	\$0.0764635	:	\$1.3569544	:	\$0.000000	=	\$0.000000
					φυ.υτ <b>υ40</b> 33		ψ1.330 <del>3344</del>		ψυ.υυυυυυ		<b>40.000000</b>

12/1/98	A=Prev Page Col A	В	C=(AxB)	D	E=(AxD)	F	G≖(AxF)	н	I=(AxH)	J	K=(AxJ)	L=(C+E+G+I+K)	м	N=(AxM)	O=(L+N)
FR   Land - COE		Depreciation Factor 0.0000	Depreciation \$0.0000000	Cost of Money Factor 0.0990	Cost of Money \$0.0075699	Income Tax Factor 0.0453	Income Tax \$0.0034663	Plant Specific Factor 0.0000	Plant Specific Expense \$0 0000000	Ad Valorem Factor 0.0085	Ad Valorem Expense \$0.0006499	Direct <u>Coet</u> \$0.0116861	Shared Cost Factor 0 0000	Stured <u>Cost</u> \$0.000000	<u>TELRIC</u> \$0 0116861
Buildings - COE 10	C \$1.3569544	0.0213	\$0.0289484	0.0790	\$0 1072601	0 0362	\$0.0491144	0.0525	\$0.0712442	0.0085	\$0.0115341	\$0 2681012	0.0000	\$0.0000000	\$0.2681012
General Purpose Computers/Data Cntr Env 53	C \$3.2901364	0.2273	\$0.7477583	0.0640	\$0.2105357	0 0293	\$0.0964044	0.0000	\$0.0000000	0.0085	\$0.0279662	\$1.0826645	0.0000	\$0.0000000	\$1.0826645
General Purpose Computers/Data Controller & Work Sta Equip 63	C \$0.0417237	0.2273	\$0.0094827	0.0640	\$0.0026699	0.0293	\$0.0012225	0.0000	\$0.0000000	0.0085	\$0.0003547	\$0.0137298	0.0000	\$0.000000	\$0.0137298
<b>Fotal</b>	\$4.7652780	-										\$1.3761815		\$0.0000000	\$1.3761815

### Florida F.1.62 - OSS Electronic Interface, per local service request - Ongoing Processing

12/1/98

Α

В

C=AxB

D

E=AxD

#### **Volume Sensitive**

٠.

				Direct		TELRIC	1 1
	JFC/	JFC/Payband	Work	Labor	Direct	Labor	TELRIC
Function	Payband	Description	Time	Rate	Expense	Rate	Expense
LENS Sys Support	ITPB58	IT Pay Band 58	0.000000	\$52.44	\$0.000000	\$52.44	\$0.0000000
LEO Sys Support	ITPB58	IT Pay Band 58	0.000000	\$52.44	\$0.000000	\$52.44	\$0.0000000
LESOG Sys Support	ITPB58	IT Pay Band 58	0.000000	\$52.44	\$0.000000	\$52.44	\$0.0000000
BSOG Sys Support	ITPB58	IT Pay Band 58	0.000000	<b>\$</b> 52.44	\$0.000000	\$52.44	\$0.0000000
TAG Sys Support	ITPB58	IT Pay Band 58	0.000000	\$52.44	\$0.0000000	\$52.44	\$0.0000000
EDI Sys Support	ITPB58	IT Pay Band 58	0.00000	\$52.44	\$0.000000	\$52.44	\$0.0000000
Trbl M&R Sys Support	ITPB58	IT Pay Band 58	0.000000	\$52.44	\$0.000000	\$52.44	\$0.0000000
Trbl Resolut Units Supp	NWPB58	Network Pay Band 58	0.000000	<b>\$5</b> 0.31	\$0.0000000	\$50.31	\$0.0000000
Supp/Update Rate Database	FRPB56	Finance/Regulatory Pay Band 56	0.000000	\$41.72	\$0.000000	\$41.72	\$0.0000000
Test/Bill Verify/Guides	FRPB58	Finance/Regulatory Pay Band 58	0.000000	\$48.12	\$0.0000000	<b>\$48.12</b>	\$0.0000000
Billing Prgm Mtce	ITPB59	IT Pay Band 59	0.00000	\$57.92	\$0.000000	\$57.92	\$0.000000
Commission Coordination	MKPB59	Marketing Pay Band 59	0.000000	\$55.17	\$0.000000	<b>\$</b> 55.17	\$0.0000000
ICS Operations Support	MKPB58	Marketing Pay Band 58	0.000000	\$49.39	\$0.000000	\$49.39	\$0.0000000

#### **Volume Insensitive**

				Direct		TELRIC	
	JFC/	JFC/Payband	Work	Labor	Direct	Labor	TELRIC
Function	Payband	Description	Time	Rate	Expense	Rate	Expense
LENS Sys Support	ITPB58	IT Pay Band 58	0.000026	\$52.44	\$0.0013457	\$52.44	\$0.0013457
LEO Sys Support	ITPB58	IT Pay Band 58	0.000063	\$52.44	\$0.0032884	\$52.44	\$0.0032884
LESOG Sys Support	ITPB58	IT Pay Band 58	0.000000	\$52.44	\$0.0000000	\$52.44	\$0.0000000
BSOG Sys Support	ITPB58	IT Pay Band 58	0.000000	<b>\$</b> 52.44	\$0.0000000	\$52.44	\$0.000000
TAG Sys Support	ITPB58	IT Pay Band 58	0.000052	\$52.44	\$0.0027433	\$52.44	\$0.0027433
EDI Sys Support	ITPB58	IT Pay Band 58	0.000000	\$52.44	\$0.0000000	\$52.44	\$0.0000000
Trbl M&R Sys Support	ITPB58	IT Pay Band 58	0.000014	\$52.44	\$0.0007183	\$52.44	\$0.0007183
Trbl Resolut Units Supp	NWPB58	Network Pay Band 58	0.000030	\$50.31	\$0.0014906	\$50.31	\$0.0014906
Supp/Update Rate Database	FRPB56	Finance/Regulatory Pay Band 56	0.000014	\$41.72	\$0.0006035	\$41.72	\$0.0006035

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Florida

F.1.62 - OSS Electronic Interface, per local service request - Ongoing Processing

12/1/98

Α

В

C=AxB

D

E=AxD

#### **Volume Sensitive**

				Direct		TELRIC	- 0
	JFC/	JFC/Payband	Work	Labor	Direct	Labor	TELRIC
Function	Payband	Description	Time	Rate	Expense	Rate	Expense
Test/Bill Verify/Guides	FRPB58	Finance/Regulatory Pay Band 58	0.000117	\$48.12	\$0.0056240	\$48.12	\$0.0056240
Billing Prgm Mtce	ITPB59	IT Pay Band 59	0.000036	\$57.92	\$0.0021060	\$57.92	\$0.0021060
Commission Coordination	MKPB59	Marketing Pay Band 59	0.000401	<b>\$5</b> 5.17	\$0.0221007	<b>\$</b> 55.17	\$0.0221007
ICS Operations Support	MKPB58	Marketing Pay Band 58	0.002579	\$49.39	\$0.1273675	\$49.39	\$0.1273675

F.1.62 - OSS Electronic Interface, per local service request - Ongoing Processing Florida

12/1/98

Nonrecurring Cost

	Direct Cost	Shared Cost	TELRIC
Nonrecurring Cost Development Sheet Col H	\$1.2560800	\$0.0000000	
Total Cost	\$1.2560800	\$0.0000000	\$1.2560800
Gross Receipts Tax Factor			K 1.0137
Cost (including Gross Receipts Tax)			\$1.2732845
Common Cost Factor			X 1.0512
Nonrecurring Economic Cost			\$1.3384767

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12/1/98			Α	В	С	D=AxC	E=BxC	F	G=ExF	H=D+G
Function	JFC/ Payband	JFC/Payband Description	Installation Worktime	Disconnect Worktime	Direct Labor Rate	install Cost	Disconnect Cost	Disconnect Discount Factor	Discounted Disconnect Cost	Direct Cost
Manually Proc LSR Fallout	2300	Customer Point Of Contact - ICSC	0.028000	0.000000	<b>\$44</b> .86	\$1.2560800	\$0.000000	1.0000	\$0.0000000 Total	\$1.2560800 1.25608
Function	JFC/ Payband	JFC/Payband Description	Installation Worktime	Disconnect Worktime	TELRIC Labor Rate	Install Cost	Disconnect Cost	Disconnect Discount Factor	Discounted Disconnect Cost	TELRIC
Manually Proc LSR Fallout	2300	Customer Point Of Contact - ICSC	0.028000	0.000000	\$44.86	\$1.2560800	\$0.000000	1.0000	\$0.0000000 Total	\$1.2560800 1.25608

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### Florida F.1.7 - OSS Manual Processing, per local service request

12/1/98

#### **Nonrecurring Cost**

	Direct	Shared	0.0
	Cost	Cost	TELRIC
Nonrecurring Cost Development Sheet Col H	\$18.8412000	\$0.0000000	\$18.8412000
Total Cost	\$18.8412000	\$0.0000000	\$18.8412000
Gross Receipts Tax Factor		X_	1.0137
Cost (including Gross Receipts Tax)		_	\$19.0992679
Common Cost Factor		X_	1.0512
Nonrecurring Economic Cost			\$20.0771504

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### Florida F.1.7 - OSS Manual Processing, per local service request

12/1/98			A	В	С	D=AxC	E=BxC	F	G=ExF	H=D+G
Function	JFC/ Payband	JFC/Payband Description	Installation Worktime	Disconnect Worktime	Direct Labor Rate	install Cost	Disconnect Cost	Disconnect Discount Factor	Discounted Disconnect Cost	Direct Cost
Service Order Processing	2300	Customer Point Of Contact - ICSC	0.420000	0.000000	\$44.86	\$18.8412000	\$0.0000000	1.0000	\$0.0000000 Total	\$18.8412000 18.8412
For all 1	JFC/	JFC/Payband	Installation	Disconnect	TELRIC Labor	install	Disconnect	Disconnect Discount	Discounted Disconnect	
Function	Payband	Description	Worktime	Worktime	Rate	Cost	Cost	Factor	Cost	TELRIC
Service Order Processing	2300	Customer Point Of Contact - ICSC	0.420000	0.000000	<b>\$44.86</b>	\$18.8412000	\$0.0000000	1.0000	\$0.0000000	\$18.8412000
									Total	18 8412