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1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		REBUTTAL TESTIMONY OF
3		D. DAONNE CALDWELL
4		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
5		DOCKETS NOS. 960757-TP/960833-TP/960846-TP/960916-TP/971140-TP
6		DECEMBER 9, 1997
7		
8	Q.	PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.
9	A.	My name is D. Daonne Caldwell. I am an Acting Director in the Finance
10		Department of BellSouth Telecommunications, Inc. (hereinafter referred to as
11		"BellSouth" or "the Company"). My area of responsibility relates to economic
12		service costs. My business address is 675 W. Peachtree St., N.E., Atlanta,
13		Georgia, 30375.
14	Q.	ARE YOU THE SAME D. DAONNE CALDWELL WHO FILED DIRECT
15		PANEL TESTIMONY IN THIS DOCKET?
16		
17	А.	Yes.
18		
19	Q.	WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
20		
21	Α.	The purpose of my testimony is to rebut testimony by various witnesses for
22		AT&T, MCI and WorldCom.
23		
24		

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1 Q. HOW IS YOUR REBUTTAL TESTIMONY STRUCTURED?

2		
3	A.	My testimony is structured to respond to the main cost issues as discussed in the
4		filed testimonies. I plan to outline the errors and misrepresentations contained in
5		the arguments offered by the witnesses and to verify the validity of the
6		methodology and data used to develop BellSouth's Total Service Long Run
7		Incremental Costs (TSLRIC) and TSLRIC plus shared and common.
8		
9		The testimony is organized to address the basic areas of contention:
10		
11		I. Operational Support Systems (OSS) Study
12		II. AT&T/MCI Collocation Model
13		III. AT&T/MCI Nonrecurring Model
14		
15		There are two additional subjects criticized by intervenors; the cost of capital used
16		in the BellSouth studies and the economic lives used in the depreciation
17		calculations. These two items will be discussed by Dr. Billingsley and Mr.
18		Cunningham, respectively.
19		
20	I. Op	erational Support Systems Study
21	Q.	SEVERAL WITNESSES DISCUSS OPERATIONAL SUPPORT SYSTEMS
22		PLEASE COMMENT.
23		
24	А.	Most of the testimony carried the theme that OSS costs are recurring costs and
25		should not be recovered as nonrecurring costs. Rather than discuss cost recovery,

1	which is in Mr. Varner's testimony, let me explain how OSS costs are identified in
2	the BellSouth cost studies.
3	
4	OSSs fall into two categories, Electronic Interfaces and Legacy Systems.
5	Electronic Interfaces are new systems developed by BellSouth for the sole purpose
6	of providing Alternative Local Exchange Company (ALEC) electronic pre-
7	ordering, ordering, maintenance, and billing capability. The Electronic Interfaces
8	provide the ALECs access to BellSouth's Legacy Systems. Legacy Systems are
9	the systems that existed prior to local competition and are used by BellSouth to
10	perform numerous functions in the provisioning of telecommunications services.
11	
12	The BellSouth cost studies calculate costs for both categories, Electronic Interfaces
13	and Legacy Systems. The costs associated with the Legacy Systems, reflecting
14	central processing units, software, programming labor, maintenance, etc., are
15	included in the shared and common factors discussed by Mr. Reid.
16	
17	The costs for the Electronic Interfaces are not included in the shared and common
18	factors. The costs for these systems are calculated in a separate study, contained in
19	the study documentation, since they are new and were developed solely for the
20	ALECs. This study includes the development expenses and three years of
21	maintenance expense associated with the new systems and program enhancements
22	to four Legacy Systems, Advanced Billing System (ABS), Application for
23	Telephone Number Load, Administration and Selection.(ATLAS),
24	Products/Services Inventory Management System (P/SIMS), and Regional Street
25	Address Guide (RSAG). The upgrades to the Legacy Systems have been made

1		solely to provide ALECs access to these systems and would not have been made
2		otherwise.
3		
4		These expenses are predominately programming labor, however some investment
5		for computer equipment and labor associated with Product Commercialization and
6		training are included. The OSS costs are calculated for three years and then
7		divided by the total orders (demand) during that three year period to produce a cost
8		per order.
9		
10	II. A'	T&T/MCI Collocation Model
11	Q.	WOULD YOU PLEASE ELABORATE ON THE BASIC AREAS OF
12		DIFFERENCES BETWEEN BELLSOUTH STUDY AND THE AT&T/MCI
13		COLLOCATION MODEL SPONSORED BY MR. BISSELL AND MR.
14		KLICK?
15		
16	Α.	Yes. The main differences surround the application fee, space preparation fee, use
17		of gypsum walls, cable lengths, and the use of the R.S. Means guidelines. I will
18		address the application and space preparation fee and Ms. Redmond will address
19		the other items.
20		
21	Q .	PLEASE DESCRIBE THE FUNCTIONS CONTAINED IN BELLSOUTH'S
22		APPLICATION FEE COST CALCULATION.
23		
24	Α.	BellSouth's Application Fee covers the cost of a service inquiry function which is
25		performed to determine if the ALEC's request for physical collocation can be met.

1	It includes marketing, project management, engineering,	and administrative time
2	associated with review, research, and planning due to the	e request, as well as a
3	written response to the customer. The chart below outlir	nes the work groups
4	involved and their associated time requirements.	
5		
6	Work Group	Time (Hours)
7	Interexchange Network Access Coordinator	40.0
8	Marketing	27.5
9	Property & Services Management	3.5
10	Outside Plant Engineering	0.5
11	Common Systems Capacity Management	8.0
12	Circuit Capacity Management	8.0
13	Total	87.5
14		
15	Project management for collocation is a labor-intensive	function that is done in
16	BellSouth by the Interexchange Network Access Coordi	nator (INAC). The INAC
17	is the point of contact for all other engineering groups re	esponsible for collocation
18	activities and interfaces with all groups and the custome	r to identify and resolve
19	issues relating to the collocation application. Each appli	ication is unique, even
20	though the same customer may always have roughly the	same requirements, since
21	those requirements apply to different central offices. W	hile a central office will
22	likely receive more than one collocation request, each re	equest is from a customer
23	with particular specifications. The special circumstance	s of each collocation
24	application drive the amount of planning and coordination	on that must be done in all
25	work groups associated with physical collocation.	

1		
2		On page 17 of his testimony, Mr. Porter states "BST does not need to market to
3		WorldCom." The marketing effort included in the study is not the selling function
4		associated with marketing, as Mr. Porter apparently believes. Rather, the
5		marketing expense in the cost study reflects the marketing and administrative
6		functions performed by BellSouth as part of the processing of the collocation
7		application request; these functions include meetings with the applicant, clarifying
8		terms and conditions, meeting with the INAC, processing the application,
9		preparing and distributing the response, and entering customer information for
10		billing to occur.
11		
12		Property & Services Management and Outside Plant Engineering determine space
13		availability and research options for the point of interconnect. Common Systems
14		Capacity Management and Circuit Capacity Management perform planning
15		functions and site visits with respect to space, power, and cabling requirements and
16		availability.
17		
18	Q.	PLEASE DESCRIBE THE FUNCTIONS CONTAINED IN BELLSOUTH'S
19		SPACE PREPARATION COST CALCULATION.
20		
21	Α.	BellSouth's Space Construction is the cost of the physical construction of the
22		collocation enclosure and includes the cost of Property Management personnel to
23		oversee the construction of the enclosure. BellSouth hires an outside architect and
24		a contractor to construct the enclosure, but BellSouth Property Management
25		oversees the construction to ensure the quality of construction complies with

1		BellSouth standards. As Ms. Redmond explains in her testimony, each central
2		office has unique characteristics, local ordinances differ, and ALEC requirements
3		vary. Thus, space preparation can only be handled on an individual case basis
4		(ICB).
5		
6	Q.	CAN YOU COMPARE THE BELLSOUTH ESTIMATES WITH THE
7		ATT/MCI MODEL'S RESULTS?
8		
9	А.	It is impossible to identify the exact cause of the differences on a functional basis
10		since the AT&T/MCI model utilizes a different rate structure and different work
11		groups. However, Mr. Bissell provides a summary in Exhibit RB-1, Chart 6 of
12		the AT&T/MCI model's total for two functions; 52 hours per CLEC request and
13		66 hours for initial planning. If I assume the 52 hours closely relates to BellSouth's
14		application fee, one can readily see the AT&T/MCI model underestimates the
15		effort required by BellSouth by 35.5 hours (87.5 - 52). Since space preparation is
16		priced on an individual case basis, for reasons previously explained, a comparison
17		cannot be made to the AT&T/MCI result of 66 hours.
18	\/II A	
19	VII. A	
20	Ų.	DO YOU AGREE WITH THE ASSUMPTIONS USED IN THE MODEL?
21		The starting and success house the second data and the second his data and the second his data and the second his second
22	A.	The structure and approach of the model appear to be reasonable. However, it is
23		reading apparent the model is founded on assumptions that are impossible to
24		acmeve and will not be acmeved in the loreseeable future.
25		

Q. WHAT ARE SOME OF THE ASSUMPTIONS THAT YOU DISAGREE WITH?

3

The first assumption I disagree with is that the service order and the provisioning 4 Α. process is one giant integrated operation. Mr. Lynott's testimony provides us a 5 perfect example of just how unrealistic this assumption is. He states, "These 6 7 architectures are important because they are forward looking intelligent processor controlled network elements that can communicate over standard interfaces to the 8 9 OSSs in such a manner that little-or-no manual intervention is required for provisioning or maintenance activities." The technology described by Mr. Lynott 10 in this statement is not currently available at our serving area interfaces, and this 11 12 capability is not planned in the foreseeable future. As Mr. Stacy explained in his testimony in Georgia Docket 7061-U: 13

14

15 "One of the earliest TMN compliant network elements to be developed was 16 the SONET node. This technology began to be commercially deployed in 17 ILEC networks in the mid-1980's. However, even today, over 10 years 18 after the initial deployment, the ability of these nodes to communicate with 19 the OSS is still severely restricted, because the systems from different 20 manufacturers do not use the same information to report their capabilities 21 or status changes to the OSS. This example of one of the oldest 22 versions of TMN compliant technology illustrates how long it takes in the 23 real world to translate vision into reality."

24

1		Nonrecurring forward-looking costs should reflect the costs that BellSouth expects
2		to incur and thus must be based on technologies that exist today which BellSouth
3		expects to deploy, not some hypothetical technology.
4		
5		Work order activities such as engineering requests for manual assistance and
6		connect and test are required in order for BellSouth to provide a reliable product,
7		on time, that meets the customer's needs regardless of whether the customer is an
8		individual or an ALEC or whether the order was received manually or
9		electronically.
10		
11		The model also assumes that all testing is collected in the recurring rates. This is
12		not true. Service order testing was specifically excluded from the recurring costs
13		as described in Section 4 of the study documentation.
14		
15	Q.	DO YOU AGREE WITH THE FALL-OUT RATE USED IN THE NRC
16		MODEL?
17		
18	Α.	No. The NRC model allows a reasonable time of 19 minutes to resolve a fallout
19		situation. This is comparable to BellSouth's 15 minutes. The model, however,
20		grossly understates the percentage of orders that will require some intervention.
21		Mr. Lynott refers to Southwestern Bell's EASE system, a system which BellSouth
22		doesn't use, but failed to provide any description or documentation of the system.
23		Without sufficient documentation, it is impossible to determine if the system even
24		performs the activities required by Mr. Lynott's scenario. However, he does state
25		the fall-out quoted is for resale orders, not unbundled network elements.

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Mr. Lynott makes the statement that "Even BellSouth admits that low fallout rates currently are achievable." and attributes this statement to Mr. Stacy. Mr. Lynott has conveniently taken Mr. Stacy's quotation out of context in implying BellSouth believes a 97% is attainable. The complete statement reads as follows:

7 "BellSouth has achieved a flow-through rate of approximately 97% in certain exchanges for retail residential services, although many other exchanges are 8 9 significantly lower. This rate has been achieved after approximately 15 years 10 of effort in designing, and re-designing the network and the OSS supporting provisioning. When business services are examined, however, the story is very 11 12 different. Despite similar efforts over a long period of time, the best flow through rates for business orders are about 80%. This is directly related to the 13 14 complexity of business orders."

15

16 BellSouth estimates a 20% front-end fall-out rate for ALEC wholesale orders from 17 the Electronic Interface. Mr. Lynott's argument that BellSouth's estimate implies an inefficient operation is totally erroneous, particularly since he offers makes this 18 no supporting documentation as to the efficiency of AT&T's nor MCI's electronic 19 systems to support his view. In contrast, BellSouth's fall-out rate is based on 20 21 actual experience with electronic ordering. The 20% front-end fall-out rate was 22 estimated after consulting with subject matter experts who had experience with 23 orders from Interexchange Carriers (IXCs) for access service. In the early stages 24 of electronic ordering by the IXCs there was a fall-out rate in excess of 30%. Over 25 time, the front-end fall-out rate has fallen to 10%. Over a three year period, it is

1		anticipated that the error rate will follow a similar pattern and the average over the
2		three year period will be approximately 20%. We cannot control the quality of the
3		data that will be input to our systems by ALECs. Mr. Landry addresses down-
4		stream fall-out rates in his testimony.
5		
6	Q.	DO YOU AGREE THAT MIGRATION ACTIVITIES CAN BE
7		ACCOMPLISHED AUTOMATICALLY?
8		
9	А.	No. Mr. Varner also addresses this issue in his testimony. Let me emphasize the
10		migration of a customer from BellSouth to a new entrant is not just a record
11		change. In an unbundled environment, the loop must be physically removed from
12		our switch and then re-terminated on the ALEC's switch or recombined in the
13		ALEC's space. This does not happen by magic, nor does improved OSS
14		capabilities allow this to happen automatically. Once again the cost is caused by
15		the ALEC, which must be recovered.
16		
17	Q.	DOES THE NRC MODEL CALCULATE TRAVEL TIME CORRECTLY?
18		
19	А.	No. The model assumes a travel time of 20 minutes and a probability of 20%. We
20		agree with these two inputs, but not their application within the AT&T/MCI
21		model. The model grossly understates the cost by assuming 4 activities per trip
22		and by restricting travel to only copper loops. In the BellSouth study, travel time
23		was estimated on a per order basis which already takes into account savings gained
24		by grouping orders and the time limitations imposed by arbitration agreements.
25		The BellSouth loop studies recognize additional units at the same location by

1		establishing a first cost and an additional cost. Travel is only assigned to the first
2		unit. Also, the assumption that loops provided over digital loop carrier do not
3		require a premises visit is incorrect. The technology required to allow this is not
4		planned.
5		
6	Q.	WHY ARE THE LABOR RATES INCLUDED IN THE AT&T/MCI
7 8		NONRECURRING MODEL INAPPROPRIATE?
9	A.	The labor rates included in the AT&T/MCI NRC model have some very serious
10		flaws in their assumptions and development and should not be approved by the
11		Commission, for the following reasons:
12		
13		1. The basic wage rate is based on data from the union contract, i.e., the highest
14		pay zone in each state. The union contract was last negotiated and approved in
15		1995. This contract is up for re-negotiation next year. Since no calculations were
16		made to inflate the wage data or include annual Cost of Living increases, this basic
17		wage data is embedded historical data, which is inappropriate for developing labor
18		rates to be applied in a forward-looking environment.
19		
20		2. There are no labor expense loadings for motor vehicles and tools, which are
21		certainly expenses directly associated with most plant work activities.
22		
23	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
24		
25	А.	Yes.
26		