

ORIGINAL

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY OF

RICHARD J. WALSH

ON BEHALF OF

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.

Docket No. 971140-TP

February 20, 1998

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1 REBUTTAL TESTIMONY OF

2 RICHARD J. WALSH

3 ON BEHALF OF

4 AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.

5 DOCKET NO. 971140-TP

6

7 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
8 **EMPLOYMENT.**

9 A. My name is Richard J. Walsh and my business address is 33 Francis Drive, Belle
10 Mead, New Jersey, 08502. I am a consultant to AT&T as a Technical Analyst in
11 the Local Connectivity Costing and Pricing District of AT&T's Local Services
12 Division.

13

14 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

15 A. No. AT&T has requested that I file Rebuttal Testimony concerning Issue 8 and
16 adopt the Direct Testimony filed by John P. Lynott on behalf of AT&T.

17

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

19 A. The purpose of my testimony is to rebut the Direct Testimonies of BellSouth
20 witnesses D. Daonne Caldwell and Eno Landry and help this Commission
21 establish appropriate non-recurring cost (NRCs) rates for local market entry when
22 a CLEC requests a 'Migration' of an existing BellSouth customer to service
23 provided by the CLEC via unbundled network elements.

24

25

1 Q. PLEASE STATE YOUR EDUCATIONAL AND EMPLOYMENT
2 BACKGROUND.

3 A. I have attended classes at Roger William's College with an emphasis in Business
4 Management, and in Economics; however, I have not completed a degree
5 program. I have completed numerous technical and management training
6 seminars and curricula during my employment with New England Telephone,
7 NYNEX & Bellcore.

8
9 I began my telecommunications career in 1970 with New England Telephone in
10 the Central Office Equipment Installation Department. In 1975, I transferred to
11 the Customer Services Outside Plant Department, receiving assignments as
12 Facilities Assigner, Completions Clerk to the Installation Control Centers, and
13 Electronic Switching Systems (ESS) Conversions Facilities Assigner.

14
15 In November 1978, I accepted an assignment as a Technical Support Staff
16 Manager for ESS Conversions. In that position, I supervised and directed non-
17 management craft and semi-craft personnel in ESS conversion activities, and
18 provided technical support to organizations that were responsible for records
19 conversion and mechanization. Additionally, I was responsible for technical
20 matters associated with the dial for dial (electromechanical to electronic & digital)
21 switch conversions. I was also instrumental in helping New England Telephone
22 develop alternative plans for converting manual plant records to mechanized
23 systems by defining system requirements and analyzing vendor software systems.

24
25

1 In 1984, I interned at Bellcore (Bell Communications Research), developing
2 system and training requirements for its Facility Assignment and Control System
3 ("FACS") product line. I returned to New England Telephone as a Staff Manager
4 supporting its FACS conversion activities. I was responsible for systems training,
5 methods and procedures development, and the staffing of a company-wide FACS
6 system hotline.

7

8 In 1986, I accepted a position of Mechanized Loop Assignment Center Manager,
9 Rhode Island. I supervised personnel that managed the day to day operations of a
10 Facility Assignment Center. This included service order provisioning, field
11 assistance, engineering work order preparation and support, as well as FACS
12 database maintenance.

13

14 In 1989, I accepted a position at New England Telephone (which subsequently
15 became NYNEX) as Outside Plant Engineer. My work included the design and
16 preparation of work prints for toll, exchange feeder, and distribution cable jobs.
17 Additionally, I had the responsibility for work order cost analysis, work order
18 quality assurance, and construction activities.

19

20 In 1993, I accepted a rotational assignment with Bellcore in its Software
21 Assurance Division. At Bellcore, I provided systems integration beta testing
22 support for the FACS product line. In 1995, I transferred to the Professional
23 Services Division as Lead/Senior Consultant in the Telecommunications Business
24 Process Consulting group. During this time, I provided consulting to major
25 telecommunications firms in areas concerning Telecommunication Reform, Local

1 Number Portability, Telecommunications Network Management (TMN) Systems
2 Architecture, and Non-Recurring Costs. In 1997, I retired from Bellcore to start
3 my own telecommunications consulting company.

4
5 **Q. PLEASE EXPLAIN YOUR EXPERIENCE WITH NON-RECURRING**
6 **COSTS.**

7 A. During my telecommunications career, I have spent much time in customer
8 services and provisioning departments. Both of these departments provided
9 services properly characterized, in appropriate circumstances, as non-recurring. I
10 have personally been involved with the service ordering and provisioning of
11 residential, business, complex, and special circuits. I interfaced with virtually
12 every department in the provisioning process while at New England Telephone.
13 Some of the activities included providing advice on service order formats, data
14 structure (USOCs and FIDs) and development of system and service order
15 requirements for new products and services. Additionally, I have supervised field
16 assistance personnel in their day-to-day interactions with Central Office (CO)
17 technicians, Installation & Maintenance (I&M) technicians, Special Service
18 Installation & Maintenance (SSIM) technicians, and others, as they connected,
19 disconnected and rearranged equipment and services. Their problems included
20 service orders problems, such as missing or incorrectly formatted customer
21 requests and facility problems, including the rearrangement of existing customer
22 lines. In addition, I have supervised receipt of data pertaining to clearance of
23 customer troubles and service order completion data required for billing.

24
25

1 During my tenure with NYNEX, I also was a part of numerous quality field
2 exercises, evaluating technicians as they performed installation and maintenance
3 tasks. This documentation was used in conducting root cause analysis for
4 problems and provided the foundation for improving methods and procedures and
5 overall service quality. While at Bellcore, I was part of several teams that
6 prepared process flow diagrams, depicting steps that technicians took during
7 provisioning of service, both inside (Central Office) and outside (Outside Plant).
8 Those analyses of process flows helped Bellcore's customers understand where
9 savings could be gained through software enhancements and through the use of
10 existing methods and procedures.

11
12 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN OTHER JURISDICTIONS?**

13 A. Yes. I have previously testified in Massachusetts, Louisiana, Alabama, Georgia,
14 Tennessee, South Carolina and North Carolina.

15
16 **Q. HAS BELL SOUTH FILED A STUDY THAT ADDRESSES THE NON**
17 **RECURRING MIGRATION ACTIVITIES FOR COMBINATIONS OF**
18 **NETWORK ELEMENTS AS DEFINED BY THE COMMISSION ORDER?**

19 A. No. BellSouth ignored the Commission's Issue and instead interpreted that
20 unbundled network elements will be provisioned separately, even if received on
21 the same order, with the elements being combined by the CLEC using collocated
22 facilities. The studies BellSouth has filed reflect gross inefficiencies and do not
23 even represent how BellSouth provisions service for itself. They clearly do not
24 represent the costs BellSouth would incur to migrate a customer to a CLEC. As
25 such, the studies and resulting prices proposed by BellSouth should be rejected.

1 Q. WHAT ARE THE INEFFICIENCIES INHERENT IN BELLSOUTH'S
2 PROPOSAL?

3 A. If an end-user customer is currently being served by BellSouth, then the facilities
4 and all functionality of that customer's service (e.g., loop and port) have been
5 properly inventoried in BellSouth's operational support systems (OSS). This
6 committed inventory practice is known as Dedicated Inside Plant ("DIP") and
7 Dedicated Outside Plant ("DOP"). BellSouth's modeled non-recurring activities
8 provide a chance for service failure or degraded service to the end-user customer.
9 BellSouth has modeled physical disconnection and re-installation of service. The
10 DIP and DOP processes allow for rapid activation or deactivation of services at an
11 end user location without the need for physical disruption of the facility.

12
13 BellSouth also includes disconnect costs which have already been recovered by
14 BellSouth through its retail service offering. In fact, with DIP and DOP, physical
15 connections remain in place and only a command at a computer from the OSS to
16 the network element is necessary to activate or de-activate the service.
17 BellSouth's current disconnect policy, like all efficient ILECs', adheres to this
18 practice of DIP and DOP in order to provide immediate service activation to the
19 next customer at that premise. If a new entrant chooses to have service de-
20 activated using only software commands, disconnection NRCs become almost
21 non-existent.

22
23 BellSouth's cost studies erroneously assume that the CLEC is required to combine
24 individual unbundled elements using collocated facilities. That's approximately
25 193 central offices where each CLEC would have to utilize collocated facilities in

1 order to utilize BellSouth's existing dedicated plant to serve customers.
2 Collocation costs are substantial and unnecessary for a migration activity. In the
3 case of a simple customer change request (e.g., "as is"¹, Total Service Resale,
4 Unbundled Network Element Platform, Soft Dial Tone²), the CLEC service
5 request does not need to access any down-stream facility assignment OSSs
6 because all facilities are already in place. Thus, the only cost associated with this
7 activity is processor time to reflect the change in who is serving the customer, and
8 to activate different billing systems to reflect the use of unbundled network
9 elements by the CLEC. Migrating or re-routing a customer's existing service via
10 collocated facilities is not only inefficient, but clearly not required. The task, as
11 requested by the CLEC, can be accomplished electronically by OSS, whether
12 accessed by BellSouth or directly by the CLEC.

13
14 BellSouth fails to recognize the efficiencies of its own existing ('Legacy') OSSs.
15 BellSouth failed to consider the automated systems that are currently available to
16 support and replace manual activities/functions performed by their respective
17 work centers. BellSouth's non-recurring cost worksheets provide work center
18 activity but no description of the activities performed by these work centers.
19 Having spent several years dealing with service provisioning in an ILEC, work-
20 times and work groups indicated by BellSouth are overstated or unnecessary due
21 to the many advances in operational support systems. The only non-recurring cost
22 that should be modeled is the potential 'fallout' of an order in the provisioning
23 process that would require manual assistance by BellSouth's RCMAG. An
24 efficient OSS should have less than 2%³ fallout necessitating manual work to
25 deliver recent change translation information to the switch.

1 Q. WHAT WOULD BE THE APPROPRIATE NONRECURRING
2 MIGRATION CHARGE THIS COMMISSION SHOULD ADOPT IF THIS
3 COMMISSION WERE TO REQUIRE CLECS TO COMBINE NETWORK
4 ELEMENTS, USING THE RECENT CHANGE PROCESS DESCRIBED
5 BY AT&T WITNESS FALCONE?

6 A. If this Commission were to determine that a CLEC must do the combining,
7 instead of BellSouth continuing to either combine network elements or not
8 uncombine currently combined network elements, an efficient, non-discriminatory
9 process for migration activity is the "recent change" process as discussed by
10 AT&T witness Robert Falcone. I have attached Rebuttal Exhibit RJW-1 to reflect
11 necessary adjustments to BellSouth's filed NRC study to conform to the technical
12 assumptions of the "recent change" process.

13
14 Under this "recent change" process, when a CLEC sends an electronic order to
15 migrate a BellSouth customer to the CLEC's service , the order triggers a recent
16 change process to de-activate the current service on the switch. The CLEC
17 receives a firm order confirmation from BellSouth. The CLEC then electronically
18 sends an "activate" translation command to restore service on the switch. These 2
19 translation messages (de-activate and activate) are matched and worked
20 concurrently by the switch in an electronic migration activity. This will re-
21 establish service for the end-user without the need to disconnect the physical
22 facilities.

23
24 For BellSouth, therefore, an order could only have fallout once. Clearance of an
25 order's jeopardy condition fixes that error on the entire quantity of loop and port

1 combinations on the order. This is represented in the Initial Install only for
2 pricing purposes. I have also adjusted the BellSouth Labor rates to the fully
3 assigned rates of the NRCM and added a 10.4% overhead factor to the direct cost
4 to calculate a recommended price. The resulting nonrecurring migration charge
5 with these adjustments would be \$.2081 per order. This compares to the
6 recommended nonrecurring migration price if BellSouth performs the combining
7 of \$.21. In other words, the price would be the same, since the work required is
8 essentially the same. The only difference is the process used to make the change
9 occur. In the case where BellSouth performs the combining, only one order is
10 sent by the CLEC to initiate the activity necessary to switch the customer. In the
11 case where the CLEC performs the combining, one order is still sent to initiate
12 the activity necessary to switch the customer. In both cases, the recent change
13 process is used to electronically perform the work, however, in the latter case, the
14 CLEC directly provides the recent change activate command to the switch instead
15 of BellSouth.

16

17 **Q. WHAT IS YOUR RECOMMENDATION TO THIS COMMISSION?**

18 A. BellSouth's cost studies are not modeled to determine the migration activity cost
19 identified by this Commission in this proceeding and should be rejected. In order
20 for a competitive environment to exist, CLECs must have non-discriminatory
21 access to BellSouth's databases and other resources for entering service orders to
22 eliminate the need for costly, intermediate customer service contacts. The price of
23 \$.21 produced by the AT&T/MCI Non-Recurring Cost Model should be adopted
24 by this Commission because it correctly assumes an efficient 'Migration' process
25 consistent with the Interconnection Agreement. The CLECs must only incur costs

1 equal to those which BellSouth would incur using a forward looking network
2 architecture and efficient OSS or else the CLEC is burdened with a barrier to
3 entry and BellSouth has no incentive to become efficient or promote competition.

4

5 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

6 A. Yes.

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1 End Notes:

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3 ¹ "As Is" means that the existing customer and their services are in place today and
4 will remain identical.

5

6 ² Soft Dial Tone is where the circuit facilities and the switch port are not
7 reassigned, but are left in place even though the premises is vacated.

8

9 ³ Low fallout rates currently are achievable. (1) BellSouth Surrebuttal Testimony
10 on 9/8/97 of William N. Stacy before the Georgia PSC in Docket No. 7061-U
11 ("BellSouth has achieved a flow-through rate of approximately 97% in certain
12 exchanges"). (2) Roy Neel, President of USTA, Presentation before the FCC In
13 Re: En Banc on State of Local Competition, 1/29/98, "I mentioned Bell South and
14 I think it's important to point out -- Heather mentioned some of the problems in
15 making OSS systems work for new entrants, but this is a new thing. It takes a lot
16 of work and expense. Not very much of it which is being recovered yet, but you
17 look in BellSouth alone, there's one C-LEC in Bell South and we can get you the
18 details about this, that has achieved a flow through rate of 97 percent over the last
19 few months. That's a real success story and it represents cooperation between the
20 I-LEC and the C-LEC and we expect that will continue." (3) A competitive local
21 environment will *necessitate* a low fallout rate, as indicated in the requirements
22 RBOCs have supplied to Bellcore. According to Bellcore GR-2869, Issue 2, (Oct.
23 1996) pg.4-25, section 4.6.2 on Immediate Service Activation, "Activation will
24 occur at the time of assignment" (i.e., immediately). Such requirements will not
25 allow for high levels of fallout.

Florida

2-Wire Analog Voice Grade Loop - Service Level 2

Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G		
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Discount	Discounted Cost		Direct Cost		
			First	Additional	First	Additional	Rate	First	Additional	First	Additional	Factor	First	Additional	First	Additional	
SERVICE ORDER	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	4WXX	Work Management Center (WMC)	0.0000	0.0000	0.0000	0.0000	\$32.40	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	400X	Address & Facility Inventory (AFIG)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	32XX	Outside Plant Eng (FG30)	0.0000	0.0000	0.0000	0.0000	\$50.84	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
TRAVEL	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.0000	\$0.0000	

Exchange Ports - 2-Wire Analog Line Port (Res., Bus.)

Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G		
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Discount	Discounted Cost		Direct Cost		
			First	Additional	First	Additional	Rate	First	Additional	First	Additional	Factor	First	Additional	First	Additional	
Service Order	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	2730	Network Services Clerical	0.0000	0.0000	0.0000	0.0000	\$32.76	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4N1X	Recent Chng Line Trans (RCMAG)	0.0057	0.0000	0.0000	0.0000	\$33.27	\$0.1885	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.1885	\$0.0000
Connect & Test	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4AXX	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.1885	\$0.0000	

ASSUMPTIONS:
2.00% FALLOUT
2 RCMAC Pull & Analyze (min)
15 RCMAC Clear Jeopardy (min)
Electronic Order with Recent Change Process

	First	Additional
Total Loop and Port	\$0.1885	\$0.0000
Total Loop & Port (w/ 10.4% Ovhd)	\$0.2081	\$0.0000

Florida

4-Wire Analog Voice Grade Loop

Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G	
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Discount Factor	Discounted Cost		Direct Cost	
			First	Additional	First	Additional		First	Additional	First	Additional		First	Additional	First	Additional
SERVICE ORDER	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	4WXX	Work Management Center (WMC)	0.0000	0.0000	0.0000	0.0000	\$32.40	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	400X	Address & Facility Inventory (AFIG)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	32XX	Outside Plant Eng (FG30)	0.0000	0.0000	0.0000	0.0000	\$50.84	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	341X	Ntwk Plug-In Admin (PICS)	0.0000	0.0000	0.0000	0.0000	\$33.87	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9043	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
TRAVEL	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.0000	\$0.0000

Exchange Ports - 4-Wire Analog Voice Grade Port

Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G	
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Discount Factor	Discounted Cost		Direct Cost	
			First	Additional	First	Additional		First	Additional	First	Additional		First	Additional	First	Additional
Service Order	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	2730	Network Services Clerical	0.0000	0.0000	0.0000	0.0000	\$32.76	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4N1X	Recent Chng Line Trans (RCMAG)	0.0057	0.0000	0.0000	0.0000	\$33.27	\$0.1885	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.1885	\$0.0000
Connect & Test	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4AXX	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.1885	\$0.0000

ASSUMPTIONS:
2.00% FALLOUT
2 RCMAC Pull & Analyze (min)
15 RCMAC Clear Jeopardy (min)
Electronic Order with Recent Change Process

	First	Additional
Total Loop and Port	\$0.1885	\$0.0000
Total Loop & Port (w/ 10.4% Ovhd)	\$0.2081	\$0.0000

Florida

4-Wire ISDN Digital Grade Loop

Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G		
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Discount	Discounted Disconnect Cost		Direct Cost		
			First	Additional	First	Additional	Rate	First	Additional	First	Additional	Factor	First	Additional	First	Additional	
SERVICE ORDER	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	4WXX	Work Management Center (WMC)	0.0000	0.0000	0.0000	0.0000	\$32.40	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	400X	Address & Facility Inventory (AFIG)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	32XX	Outside Plant Eng (FG30)	0.0000	0.0000	0.0000	0.0000	\$50.84	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	341X	Ntwk Plug-In Admin (PICS)	0.0000	0.0000	0.0000	0.0000	\$33.87	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9043	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9183	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
TRAVEL	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.0000	\$0.0000	

Exchange Ports - 2-Wire ISDN Port

Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G		
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Discount	Discounted Disconnect Cost		Direct Cost		
			First	Additional	First	Additional	Rate	First	Additional	First	Additional	Factor	First	Additional	First	Additional	
Service Order	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	2730	Network Services Clerical	0.0000	0.0000	0.0000	0.0000	\$32.76	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4N1X	Recent Chng Line Trans (RCMAG)	0.0057	0.0000	0.0000	0.0000	\$33.27	\$0.1885	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.1885	\$0.0000
Connect & Test	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4AXX	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.8248	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	3A2X	Ntwk Plug-In Admin (PICS)	0.0000	0.0000	0.0000	0.0000	\$33.87	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.8248	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.1885	\$0.0000	

ASSUMPTIONS:
2.00% FALLOUT
2 RCMAC Pull & Analyze (min)
15 RCMAC Clear Jeopardy (min)
Electronic Order with Recent Change Process

	First	Additional
Total Loop and Port	\$0.1885	\$0.0000
Total Loop & Port (w/ 10.4% Ovhd)	\$0.2081	\$0.0000

Florida																
4-Wire DS1 Digital Loop																
Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G	
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Disconnect Discount	Discounted Disconnect Cost		Direct Cost	
			First	Additional	First	Additional		First	Additional	First	Additional	Factor	First	Additional	First	Additional
SERVICE ORDER	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	341X	Ntwk Plug-In Admin (PICS)	0.0000	0.0000	0.0000	0.0000	\$33.87	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9043	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	4WXX	Work Management Center (WMC)	0.0000	0.0000	0.0000	0.0000	\$32.40	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
SERVICE ORDER	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	400X	Address & Facility Inventory (AFIG)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
ENGINEERING	32XX	Outside Plant Eng (FG30)	0.0000	0.0000	0.0000	0.0000	\$50.84	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	471X	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
CONNECT & TEST	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
TRAVEL	411X	Install & Mtce - Spec Svcs (SSIM)	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.0000	\$0.0000

Exchange Ports - 4-Wire ISDN DS1 Port																
Function	JFC/ Payband	JFC/Payband Description	A		B		C	D=AxC		E=BxC		F	G=ExF		H=D+G	
			Installation Worktimes		Disconnect Worktimes		Fully Loaded Labor Rate	Install Cost		Disconnect Cost		Disconnect Discount	Discounted Disconnect Cost		Direct Cost	
			First	Additional	First	Additional		First	Additional	First	Additional	Factor	First	Additional	First	Additional
Service Order	2300	Customer Point Of Contact - ICSC	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	2730	Network Services Clerical	0.0000	0.0000	0.0000	0.0000	\$32.76	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4N1X	Recent Chng Line Trans (RCMAG)	0.0057	0.0000	0.0000	0.0000	\$33.27	\$0.1885	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.1885	\$0.0000
Connect & Test	431X	CO Install & Mtce Field - Ckt & Fac	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4AXX	Acc Cust Advocate Cntr (ACAC)	0.0000	0.0000	0.0000	0.0000	\$33.27	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9133	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Engineering	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	470X	Circuit Provisioning Group (CPG)	0.0000	0.0000	0.0000	0.0000	\$34.91	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	3A2X	Ntwk Plug-In Admin (PICS)	0.0000	0.0000	0.0000	0.0000	\$40.46	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.8248	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4N2X	Switch & Trunk Based Translations	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Connect & Test	4N5X	Trunk & Carrier Group	0.0000	0.0000	0.0000	0.0000	\$41.97	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.9163	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Total															\$0.1885	\$0.0000

ASSUMPTIONS:
2.00% FALLOUT
2 RCMAC Pull & Analyze (min)
15 RCMAC Clear Jeopardy (min)
Electronic Order with Recent Change Process

	First	Additional
Total Loop and Port	\$0.1885	\$0.0000
Total Loop & Port (w/ 10.4% Ovhd)	\$0.2081	\$0.0000