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July 29, 2002

Ms. Blanca Bayo, Director
Commission Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard, Room 110
Betty Easley Conference Center
Tallahassee, FL 32399-0850

VIA HAND DELIVERY

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COMMISSION
CLERK

Re: Docket No. 020129-TP

Dear Ms. Bayo:

Enclosed herewith for filing in the above-referenced docket on behalf of ITC^DeltaCom Communications ("ITC^DeltaCom") are the original and fifteen copies of the redacted Prefiled Rebuttal Testimony of Steve Brownworth and Exhibits SB-5 and SB-7, and a redacted version of Exhibit SB-6. Pages 10, and 11 of Mr. Brownworth's testimony, that contain confidential information, are filed separately in a sealed envelope along with confidential Exhibit SB-6.

Also enclosed is a diskette containing the Prefiled Rebuttal Testimony of Steve Brownworth. This testimony is in WordPerfect format.

Please acknowledge receipt of these documents by stamping the extra copy of this letter "filed" and returning the copy to me.

Thank you for your assistance with this filing.

Sincerely,

Martin P. McDonnell
Martin P. McDonnell, Esq.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the Prefiled Rebuttal Testimony of Steve Brownworth with Exhibits SB-5 and SB-7 on behalf of ITC^DeltaCom Communications ("ITC^DeltaCom") was furnished by U. S. Mail to the following this 29th day of July, 2002:

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Martin P. McDonnell, Esq.

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

In re: Joint petition of US LEC)
of Florida Inc., Time Warner)
Telecom of Florida, L.P., and)
ITC^DeltaCom Communications)
objecting to and requesting)
suspension of proposed CCS7)
Access Arrangement tariff filed by)
BellSouth Telecommunications, Inc.)
_____)

Docket No. 020129-TP

Filed: July 29, 2002

**REBUTTAL TESTIMONY OF STEVE BROWNORTH
ON BEHALF OF ITC^DELTACOM**

DOCUMENT NUMBER-DATE

07934 JUL 29 02

FPSC-COMMISSION CLERK

1 **Q: PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS?**

2 A: My name is Steve Brownworth. I am an employee of ITC^DeltaCom
3 Communications, Inc., ("ITC^DeltaCom"), and my business address is 1791 O.G.
4 Skinner Drive, West Point, Georgia 31833

5
6 **Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A: The purpose of my testimony is to respond to the testimony of Mr. Ruscilli and
8 Mr. Milner. Specifically, I will address problems with Mr. Milner's testimony
9 regarding the application of SS7 charges (Issues 2 and 7) and Mr. Ruscilli's
10 testimony regarding calculation and application of PLU/PIU factors.

11

12

13 **Q: DO YOU AGREE WITH MR. MILNER WHEN HE STATES THAT " TO DATE**
14 **THE PER MESSAGE CHARGE FOR THE CCS7 SERVICE HAS BEEN**
15 **ZERO....." (PAGE 5, LINE 21)?**

16

17 A: No, not entirely. While the per message charge for the service has been never
18 been charged separately, BellSouth has been charging carriers through various
19 switched access elements. Mr. Milner's testimony leads one to believe that
20 BellSouth was not getting compensated for the use of their SS7 network. It
21 further appears that BellSouth has been billing an amount (claimed as
22 confidential) in annualized surrogate usage charges, in addition to the switched
23 access elements, which indicates that BellSouth was recouping CCS7 costs on a

1 fixed-cost basis as well as through its switched access elements. See
2 Confidential Exhibit SB-6, Bates Page 00002.

3
4 **Q: REGARDING ISSUE 6, ON PAGE 6, LINE 16, MR. MILNER STATED**
5 **“...ONLY ONE ENTITY IS BILLED FOR A PARTICULAR CCS7 MESSAGE**
6 **INVOLVED IN A CALL. ACCORDINGLY, AN IXC AND AN ALEC WILL NOT**
7 **BE BILLED FOR THE SAME MESSAGE AND THERE IS NO DOUBLE**
8 **BILLING.” DO YOU STILL BELIEVE THAT A CARRIER WILL BE DOUBLED**
9 **BILLED?**

10
11 **A:** Yes. It is my understanding from discussions with Mr. Randklev (BellSouth
12 product manager) that BellSouth simply counts the number of SS7 messages
13 sent and received from customer links and bills for each counted message.
14 However, BellSouth takes the position that a new message is created (and
15 therefore, a new billing event occurs) when a message passes through a Service
16 Transfer Point (“STP”). BellSouth bills the carrier who originated the message
17 and then bills the carrier who terminated the “new message” that was supposedly
18 created when the original message passed through a STP. However, there is
19 no “new message”. We view this as one continuous message for which
20 BellSouth should bill only the carrier that launched it. BellSouth should not bill
21 the carrier receiving the message. Apparently BellSouth’s billing system is not
22 able to differentiate between messages on the basis of their jurisdiction or
23 origination and termination, but is limited to a simple “peg count” of messages.

1 Exhibit SB-5 is an illustration of the flow of SS7 messages on a single phone call
2 from Telcordia document GR-905-CORE. Figure 4-1 of the Exhibit clearly shows
3 that the "IAM" messages flow from the originating network all the way to the
4 terminating network. My understanding is that BellSouth will bill IAM messages to
5 both the originating network and the terminating network, which is inapposite to
6 the diagram set forth in Exhibit SB-5.

7

8 **Q: REGARDING ISSUE NO. 7, MR. MILNER STATES THAT BELLSOUTH WILL**
9 **BILL CARRIERS FOR MESSAGES THAT BOTH ORIGINATE AND**
10 **TERMINATE TO THAT CARRIER BECAUSE THE DIRECTIONALITY OF THE**
11 **MESSAGE DOESN'T MATTER. (PAGE 7, LINE 22 – 24) PLEASE**
12 **COMMENT.**

13

14 **A:** Mr. Milner is forced to take this position because BellSouth can't determine
15 directionality or jurisdictionality.

16

17 **Q: HAS BELLSOUTH ADDRESSED ITC^DELTACOM'S NEEDS AS A THIRD-**
18 **PARTY PROVIDER TO BE ABLE TO PASS-THROUGH THESE CHARGES TO**
19 **YOUR SS7 CUSTOMERS?**

20

21 **A:** No. Although we have attempted to resolve these matters with BellSouth,
22 BellSouth has not agreed to provide us with detailed billing information we
23 require and the costs quoted have been excessive. ITC^DeltaCom provided
24 BellSouth with a sample format of the information we need but BellSouth has not

1 followed up with the details concerning this information. BellSouth stated that the
2 problem they had with providing bill detail was storing and processing the data
3 records. Additionally, they had not defined any systems or processes to handle
4 this product enhancement.

5
6 **Q: WHY DOESN'T ITC^DELTA COM FOLLOW BELLSOUTH'S METHODOLOGY**
7 **AND SIMPLY COUNT MESSAGES AND CHARGE YOUR CUSTOMERS FOR**
8 **THEM IN THE SAME MANNER AS BELLSOUTH'S PROPOSED TARIFF?**

9
10 **A:** We wish it were that easy. Our customers use the ITC^DeltaCom STPs for
11 messages that terminate to locations served by carriers other than BellSouth.
12 These messages include calls to IXCs, ITC^DeltaCom switches, databases
13 homed off our STP for wireless transmissions, and other third-party providers as
14 well as calls between the customers' own switches. Charging for counted
15 messages would result in overcharging our customers for signaling not directly
16 related to BellSouth and for other LEC STP message charges.

17
18 As a joint provider of access from BellSouth's tandem to our end offices,
19 ITC^DeltaCom must be able to pass-through these message charges to our
20 access customers. This traffic comes from BellSouth's STP and we must have
21 data that allows us to identify the access provider from all the messages sent and
22 received from BellSouth STPs. This data can only come from a more detailed
23 billing system that reviews individual messages.

1 **Q: IS BELLSOUTH ASKING YOU TO DEVELOP SOMETHING THEY**
2 **THEMSELVES REALIZE IS A SIZABLE EFFORT FOR THEIR OWN**
3 **ORGANIZATION?**

4
5 A: Yes. Any carrier, regardless of its size, is going to have to go through the same
6 effort of getting SS7 messages that contain certain data whether OPC/DPC for
7 pass-through or called from and to numbers for jurisdictional reporting. Each
8 carrier will have to gather, process and store that information associated with its
9 own STPs or switches. BellSouth's own responses to ITC^DeltaCom's Request
10 for Production of Documents illustrates that the demand level for ISUP and TCAP
11 messages for the year 2000 is extraordinarily high. See Confidential Exhibit SB-
12 6, Bates page 00007. ITC^DeltaCom and other carriers will be forced to develop
13 highly sophisticated, robust billing, tracking and auditing systems for these SS7
14 messages. This seems excessive to implement a BellSouth tariff that is
15 supposed to be revenue neutral.

16
17 **Q: IS MR. RUSCILLI'S TESTIMONY CONCERNING JURISDICTIONAL**
18 **REPORTING CONSISTENT WITH BELLSOUTH'S JURISDICTIONAL FACTOR**
19 **GUIDELINES POSTED ON BELLSOUTH'S WEBSITE?**

20
21 A: No. While I do not disagree with Mr. Ruscilli as to the calculation methodology for
22 PLU and PIU factor calculations for SS7 messages, that methodology is not
23 consistent with the BellSouth Jurisdictional Factor Guideline published on

1 BellSouth's website. Both Mr. Ruscilli's statements in his direct testimony and
2 the intrastate tariff imply that PIU and PLU will be determined by the number of
3 messages rather than the number of switched access minutes. The BellSouth
4 Jurisdictional Factor Guideline, however, directs CLECs and IXCs to report
5 minutes of use rather than number of messages for the signaling PIU. These
6 inconsistent instructions could result in misreporting of signalling PIUs and PLUs.
7 Further, neither the intrastate tariff filing nor the Jurisdictional Factor Guideline
8 define what is or is not considered local traffic.

9
10 **Q: AS A THIRD PARTY PROVIDER OF SS7, HAS ITC^DELTACOM IDENTIFIED**
11 **OTHER PROBLEMS WITH REPORTING JURISDICTIONAL PERCENTAGES**
12 **FOR MESSAGES?**

13
14 **A:** Yes. There are two additional issues we have with Mr. Ruscilli's testimony. The
15 first issue is the methodology in creating the SS7 jurisdictional percentages for a
16 third-party provider. Even if we did receive PIUs from our customers, we would
17 also have to ask them for all their message or minute information for local and
18 access to get a true weighted average PIU/PLU. This creates the additional
19 burden on us to ask, what is in many cases our competition, for very sensitive
20 company data. Without this information we will have to use defaults, but we
21 would not know what percentage of our default traffic to apply to the PIU/PLUs
22 without being able to differentiate between the number of minutes or messages
23 that ITC^DeltaCom generates versus what our SS7 carrier customers generate.

1 To get an accurate accounting of jurisdictional SS7 messages we would need to
2 know more than just a simple peg count, we would need to know the originating
3 and terminating destination for each message and which carrier generated that
4 message.

5
6 The second issue is that BellSouth seems to be limiting the definition to local
7 calls to anyone that has an approved interconnection agreement with BellSouth.
8 For instance, we have wireless and independent carriers on our STPs.
9 ITC^DeltaCom would need to determine if our customers have an agreement
10 with BellSouth that fits BellSouth's criteria. For example, it is not clear whether a
11 wireless carrier ordering type-two service from the GSST (General Subscriber
12 Services Tariff) or an independent local exchange carrier that has a settlement
13 agreement with BellSouth would be considered to have an agreement for local
14 service.

15

16 **Q: WHAT IF A CARRIER IS UNABLE TO REPORT ON THE**
17 **JURISDICTIONALITY OF THE MESSAGES?**

18

19 **A:** BellSouth's intrastate tariff does have default language. The default PIU in the
20 intrastate tariff is 50%. However, this does not address the local contribution of
21 carriers with an approved interconnection agreement. It only states that 50% of
22 the messages will be billed at the intrastate rate and the other 50% of the
23 messages billed that the interstate rate. However, if a carrier refuses to share

1 this information or cannot accurately report the number of SS7 messages to the
2 third-party SS7 provider (ITC^DeltaCom), BellSouth does not specify how this
3 should be included into a weighted PIU/PLU factor.
4

5 **Q: DO YOU HAVE A RECOMMENDATION TO THE COMMISSION ON A BETTER**
6 **ALTERNATIVE TO THE THIRD-PARTY PIU CALCULATION?**
7

8 A: Yes. I would recommend that until either company (BellSouth or the third party
9 SS7 provider) has the capability to report on the jurisdictionality of SS7
10 messages by review of the *actual* messages, the third-party provider should use
11 their own PIU and PLU percentages as a surrogate for their third-party SS7
12 customers' traffic.
13

14 **Q: HAS BELLSOUTH FILED SIGNALING PIUs AND PLUs WITH**
15 **ITC^DELTACOM?**
16

17 A: No. I have checked with the ITC^DeltaCom organizations that work with
18 BellSouth on billing and determined that we have not received any signaling PIUs
19 from BellSouth.
20

21 **Q: MR. RUSCILLI STATED THAT ALECS HAVE THREE OPTIONS FOR**
22 **OBTAINING CCS7 FUNCTIONALITY FOR THEIR CALLS: PROVIDE THEIR**
23 **OWN FUNCTIONALITY, OBTAIN IT FROM A THIRD PARTY VENDOR OR**

1 **OBTAIN IT FROM BELL SOUTH. (PAGE 3, LINE 19 THROUGH PAGE 4, LINE**
2 **4.) PLEASE COMMENT.**

3
4 A: Mr. Ruscillis' testimony is misleading. He implies that ALECs that do not "choose
5 to obtain" CCS7 from BellSouth would not incur charges under BellSouth's CCS7
6 tariff. This is not true. In reality, BellSouth applies CCS7 charges for every call
7 routed through its STPs, even if the ALEC provides its own CCS7 functionality for
8 that call, or obtains it from a third party. For example, ITC^DeltaCom places
9 many calls using its own SS7 functionality, but those calls end up being routed
10 through BellSouth's STPs (and ITC^DeltaCom is then charged pursuant to the
11 CCS7 tariff) because we cannot link directly into each BellSouth end office. In
12 reality, there is only one option, all call messages must route through a BellSouth
13 STP and incur CCS7 tariff charges, even if ALECs provide their own CCS7
14 functionality.

15
16 **Q: IS THE TARIFF FILING REVENUE NEUTRAL TO ITC^DELTA COM?**

17 A: No. ITC^DeltaCom is a third party provider of SS7 networks, and therefore
18 processes carrier traffic other than our own. Additionally, since the local
19 switching offset only applies to BellSouth switches and not to other carriers, we
20 will see an increase in costs from carriers outside of BellSouth, as those other
21 carriers are not planning to reduce their switched access elements. Thus, a call
22 from an independent local exchange carrier to ITC^DeltaCom means that
23 ITC^DeltaCom will be billed both access from the independent and SS7 charges

1 from BellSouth with no reduction in local switching. This example is simply to
2 show that this "revenue neutral" tariff restructure has other implications.

3

4 **Q: DO YOU QUESTION THE ACCURACY OF MR. RUSCILLI 'S CLAIM THAT**
5 **THIS TARIFF FILING IS REVENUE NEUTRAL?**

6 A: Yes. I have not had enough time to fully review BellSouth's responses to
7 ITC^DeltaCom's discovery, but based on the email correspondence BellSouth
8 produced I do have questions. Specifically, my concerns are as follows:

9 • It is important to note the purpose for which BellSouth initially developed
10 usage billing for SS7. The objective was [REDACTED]

11 [REDACTED] See Confidential Exhibit SB-6, Bates Pages 00002-
12 00160.

13 • It appears that BellSouth's forecast did not include any TCAP peg counts
14 associated with certain types of messages that will nevertheless generate
15 SS7 billing, such as [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED] Confidential Exhibit SB-6, Bates Page 00002.

- It is unclear what growth factor BellSouth used in its calculations. On Bates Page 00006 of Confidential Exhibit SB-6, BellSouth used a growth factor of [REDACTED] but on Bates Page 00049 of Confidential Exhibit No. SB-6 BellSouth used a demand growth factor of only [REDACTED]

- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Confidential Exhibit SB-6, Bates Pages 00027-00031;00035.

- It appears that BellSouth did not include [REDACTED] as part of its TCAP message count. Confidential Exhibit SB-6, Bates Page 00010;00033. There are TCAP messages associated [REDACTED]

[REDACTED] The omission of these TCAP message counts would result in a lower forecasted demand.

- The demand methodology in BellSouth's FCC Description and Justification filing appears to exclude from its demand forecast the the messages of companies with SS7 direct connectivity to BellSouth who are not third party providers of SS7 and do not purchase local switching. If the intrastate demand forecast methodology is the same, this exclusion

1 would result in a reduction in a lower forecasted demand, which causes
2 me to doubt BellSouth's claim of revenue neutrality. BellSouth's FCC
3 Description and Justification filing is attached as Exhibit SB-7
4

5 **Q: MR. RUSCILLI APPARENTLY BELIEVES THAT ITC^DELTACOM IS A "COST**
6 **CAUSER" FOR BELLSOUTH'S STPS. (PAGE 16, LINES 15-18) PLEASE**
7 **RESPOND.**

8 **A:** While ITC^DeltaCom "causes" costs for calls that *originates* to BellSouth from
9 its end users, it is not the cost causer for calls originated by BellSouth or other
10 carriers and routed through ITC^DeltaCom's STP network to the BellSouth STP
11 network. The carriers originating such calls "cause" those costs. That is why it is
12 unreasonable for BellSouth to charge ITC^DeltaCom for third-party calls without
13 providing the billing detail necessary for DeltaCom to bill its third-party
14 customers.
15

16 **Q: MR. RUSCILLI STATES THAT HE IS "NOT SURE WHAT ALECS INTENDED**
17 **TO ADDRESS" IN ISSUE NO. 8 (IMPACT OF BELLSOUTH'S CCS7 TARIFF**
18 **ON SUBSCRIBERS). PLEASE RESPOND.**

19 **A:** ITC^DeltaCom would like the Commission to understand the effect BellSouth's
20 CCS7 tariff will have on ALECs' business, including the ability to compete with
21 BellSouth, ITC^DeltaCom cannot continue to compete with BellSouth if we must
22 absorb cost increases that BellSouth passes to its competitors. ITC^DeltaCom
23 must be able to pass BellSouth's CCS7 costs to the users of our own SS7

1 network, including our carrier access customers and the carriers for whom we
2 provide SS7 services.

3
4 **Q: IN YOUR DIRECT TESTIMONY YOU STATED THAT BELLSOUTH HAD**
5 **OFFERED A BILL-AND-KEEP ARRANGEMENT TO ILECS. ON PAGE 15 OF**
6 **HIS TESIMONY, MR. RUSCILLI STATES THAT BELLSOUTH CHARGES**
7 **ILECS FOR THE SIGNALLING ASSOCIATED WITH TRAFFIC THEY**
8 **EXCHANGE WITH BELLSOUTH. PLEASE COMMENT.**

9
10 **A:** Mr. Ruscilli's answer addressed the link question only and did not state whether
11 BellSouth has been charging ILECs for *usage* associated with TCAP and ISUP
12 messages and when BellSouth began billing for such services. Additionally, in
13 response to ITC^DeltaCom's Interrogatory No. 1, Bellsouth states it has *not*
14 billed SS7 messages to ILECs with B-Links. Yet, ILECs originate and terminate
15 access minutes as they have the end office responsibility for their subscribers.
16 Therefore, BellSouth should be billing independents for SS7 usage in the same
17 manner that it has for ITC^DeltaCom and other carriers.

18
19 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

20 **A:** Yes. However, I respectfully reserve the right to supplement my testimony based
21 upon BellSouth's recent responses to ITC^DeltaCom discovery if necessary, due
22 to BellSouth's late response to such discovery.

purposes, a signaling path through the CCS Network Provider Interconnecting STPs with GR-82-CORE capability to ICN STPs also equipped with suitable capabilities is used. Internetwork call setup using SS7 is available for both originating and terminating access.

Section 4.1.1 describes the internetwork call control messages and their flows for a typical call setup and release scenario and its possible variations. Sections 4.1.2 and 4.1.3 provide a description of internetwork call control using CCS/SS7 for both originating and terminating access to interLATA carriers. Section 4.1.4 describes tones and announcements considerations for internetwork call control. Interconnection considerations for Other LATA Carriers (OLCs) are described in Section 4.1.5, and interconnection considerations for Tandem Service Providers (TSPs) are discussed in Section 4.1.6. The basis for routing (based on dialed number or carrier identification code) on different types of trunks is discussed in Section 4.1.7. Sections 4.1.8, 4.1.9, 4.1.10, 4.1.11, and 4.1.12, respectively, discuss completion of the transmission path, handling of unrecognized messages and parameters, ISUP reaction to TFC/isolation, automatic congestion control, and hop counter procedures.

4.1.1 Internetwork Call Control Messages and Flows

This section describes the messages that flow between networks to set up a call between two end users. It considers a typical scenario with SS7 within all networks including an originating network, an ICN, and a terminating network. Possible variations of this call setup and release scenario are also described.

The following ISDNUP messages are used for call setup and release:

- **Initial Address Message (IAM):** When a trunk is seized for a call, it is made busy and the IAM is sent in the forward direction to initiate trunk setup. The IAM carries information about that trunk, along with other information relating to the routing and handling of the call, to the next switch.
- **Continuity (COT) Message:** The COT message is sent in the forward direction to indicate a success or failure of the continuity check performed on a circuit.
- **Address Complete Message (ACM):** The ACM is sent in the backward direction from a terminating end office when the called party information is complete and any continuity checks required in the connection are successfully completed.
- **Answer Message (ANM):** The ANM is sent in the backward direction to indicate that the call has been answered.
- **Circuit Reservation Message (CRM):** The CRM is sent in the forward direction to reserve an outgoing SS7 supported circuit and to initiate any required continuity check.

- **Circuit Reservation Acknowledgment (CRA) Message:** The CRA is sent in the backward direction in response to a CRM indicating that a circuit has been reserved for an incoming call.
- **Exit Message (EXM):** The EXM is sent in the backward direction from an AT to indicate that SS7 call setup information has successfully progressed to the adjacent ICN.
- **Release (REL) Message:** The REL message is sent in either direction to indicate that the specified circuit is being released.
- **Release Complete (RLC) Message:** The RLC message is sent in either direction as a response to an REL message. The RLC message idles a circuit for use on the next call.
- **Suspend (SUS) Message:** The SUS message is sent in the backward direction to indicate that the called party went on-hook before receipt of a Release message.
- **Resume (RES) Message:** The RES message is sent in the backward direction after an SUS has been sent, to indicate that the called party has reconnected.
- **Call Progress (CPG) Message:** For non-ISDN calls, the CPG is sent in the backward direction to indicate that an intermediate SPCS has received an ACM for a call for which it has previously transmitted an ACM.
- **Confusion (CFN) Message:** The CFN message is sent in either direction by a switch to inform the preceding switch in the call connection that it has received an unrecognized message type. The CFN Message can occur at any time during the sequence of messages between two switches. Figure 4-18 (found in Section 4.2) shows an example of the use of the CFN Message. In this illustration, the CCS Network Provider End Office/Signaling Point (EO/SP) has sent a message to the ICN which is not recognized by the ICN. The CCS Network Provider EO/SEP will be prepared to receive a CFN message from an ICN, but whether an ICN sends a CFN to a CCS Network Provider is an option of the ICN. In the converse case (when the CCS Network Provider receives an unrecognized message from the ICN), whether the CCS Network Provider sends a CFN to an ICN will be based on business arrangements between the CCS Network Provider and the ICN. The reader should note that even though an unrecognized message has occurred, the call setup may continue, provided one of the necessary call setup messages is not the message in error.

After an end user has dialed a required number of digits for a domestic or an international call, an end office has enough information to formulate an IAM to initiate signaling for trunk setup. The switch marks the circuit (indicated by the TCIC in the IAM) busy, and carries that information to the next switch. The IAM contains the Originating Point Code (OPC), Destination Point Code (DPC), Signaling Link Selection (SLS), and TCIC along with other parameters shown in Table A-16 in Appendix A. For a given OPC and DPC, the TCIC uniquely identifies an SS7-supported circuit. The IAM also carries an indication to notify the next switch whether or not a continuity check is required. If required, continuity check

procedures as described in Section 5 are performed. After the continuity check is successfully completed, a Continuity (COT) message with continuity indicator coded as "continuity check successful" is sent in the forward direction and a trunk is set up. The IAM progresses switch-to-switch via the STPs to the terminating switch. At this point, if the terminating line is idle, an audible ring is provided to the calling party by the terminating switch which also returns an ACM switch-to-switch to the originating end office. However, if the terminating line is busy, the terminating switch may return an REL message with a cause indicating the line busy and releasing the intermediate trunks. (Assuming an end-to-end SS7 connection, see Section 4.1.1.1). Assuming the terminating line is free and the call is answered, the answer supervision is sent in the backward direction by an ANM. At this time, the call is established and the conversation begins.

After the conversation is finished, the call can be disconnected with procedures depending upon who hangs up first, the calling party or the called party. If the calling party hangs up first, an REL is sent in the forward direction, from the calling end to the called switch. The individual segments of the circuit, i.e., trunks are released. An RLC message is sent, switch-to-switch, in the reverse direction to indicate the idling of the trunks and the availability of the trunks for next call.

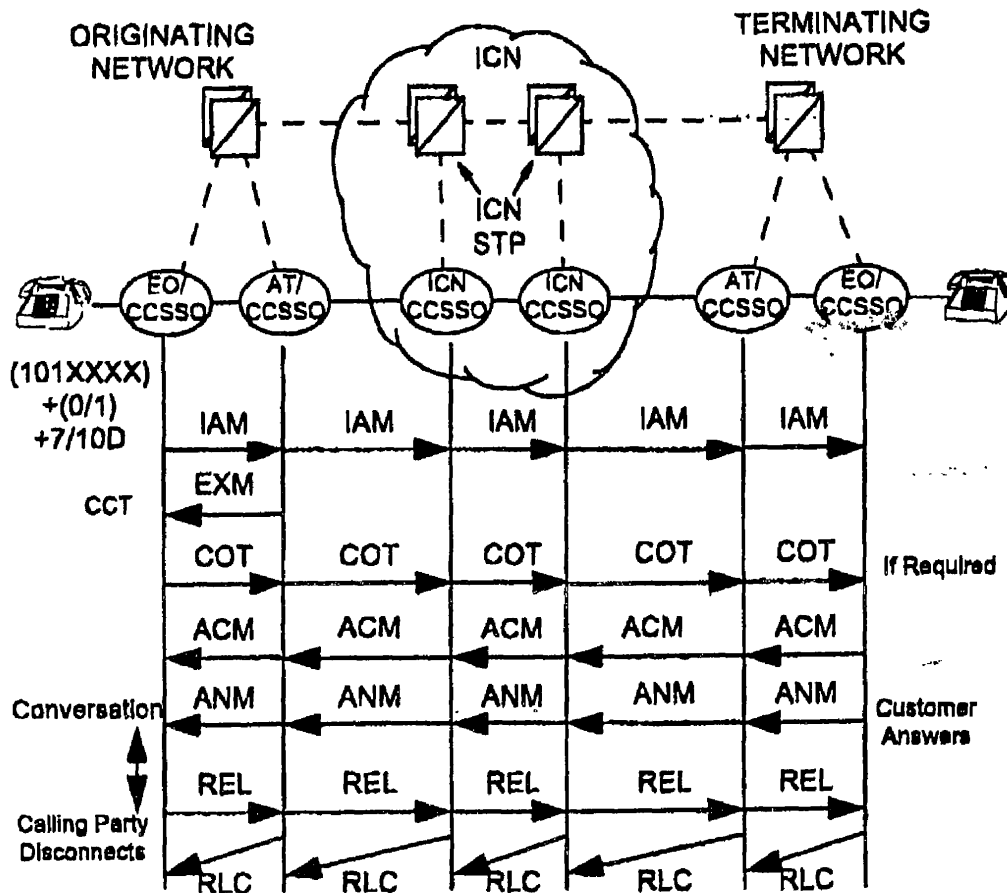


Figure 4-1. Typical Call Setup and Release (Assumes Calling Party Disconnect)

4.1.1.1 Call Flow Variations

The above section described a typical call setup and release scenario. There are possible variations to this scenario. These variations are depicted in Figure 4-2. These variations assume SS7 in all networks. As seen in Figure 4-1, the message flows for all SS7 at the two interfaces (e.g., originating interface and terminating interface) are the same. As such, Figure 4-2 shows an interface and the messages crossing that interface for different conditions. It identifies six possible variations in cases (a) through (f) as follows:

- a. Terminating line busy:

Exhibit SB-6

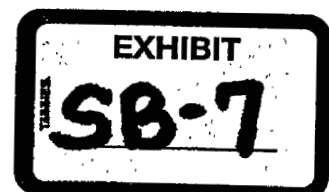
**Confidential
and Proprietary**



BELLSOUTH TELECOMMUNICATIONS, INC.
DESCRIPTION AND JUSTIFICATION
BELLSOUTH CCS7 ACCESS ARRANGEMENT

TRANSMITTAL NO. 588

April 30, 2001



1.0 INTRODUCTION

With this filing, BellSouth Telecommunications, Inc. hereinafter referred to as "BellSouth" is revising its F.C.C Tariff No. 1 relative to CCS7 Access Arrangement such that a charge will apply to all Integrated Switched Digital Network User Part (ISUP) and Transaction Capabilities Application Part (TCAP) messages. At the same time, local switching rates are being reduced to reflect the usage sensitive CCS7 restructure.

2.0 CCS7 ACCESS ARRANGEMENT - RESTRUCTURE

When a customer orders CCS7 Arrangement, the customer may currently choose BellSouth CCS7 Usage Feature as an Optional Feature for the billing of call set-up (ISUP) and non-call set-up (TCAP) messages. Alternatively, signaling usage is bundled with Feature Group D local switching. With this filing, signaling usage will no longer be bundled with local switching. CCS7 will be restructured such that billing for ISUP and TCAP will occur per signaling message. To reflect that previously bundled signaling usage will, under the restructure, be billed on a per signaling message basis, local switching charges are being reduced.

2.1 PRICE CAP INDICES AND AVERAGE TRAFFIC SENSITIVE (ATS) RATES

As displayed on the TRP provided with this filing and Appendix A, Workpaper SUM-A, the revisions proposed in this filing keep BellSouth within all allowable price cap limits. In addition, as shown in Workpaper TGT-1, this filing has no impact on the current ATS rate of \$0.006197.

3.0 RATES AND ECONOMIC INFORMATION

With this filing, customers will begin being billed for ISUP and TCAP usage charges as of June 15, 2001. This delay in billing is necessary in order to allow intrastate CCS7 tariffs to be filed in each of the states where BellSouth operates and to become effective on the same day as the interstate tariff.

4.0 TARIFF REVIEW PLAN (TRP)

Total SS7 demand was determined through the completion of two steps. Demand had to be developed for access messages and also for Third Party Provider messages.

First, to determine the number of query messages associated with interstate access demand, total 1999 interstate voice messages by call type were pulled from CABS statistical billing records. After obtaining the 1999 voice message demand, the quantity of query messages was obtained by multiplying the voice message demand by call type by the average number of ISUP and TCAP query messages associated with a call. The average number of ISUP and TCAP messages associated with a call is detailed in Telcordia's GR-246-CORE, SS7 technical reference documentation.

Second, since Third Party Providers are not billed local switching by BellSouth, Third Party demand was determined using a different method. In addition, BellSouth did not have any historical data regarding Third Party Provider voice message demand accessible from CABS statistical billing records. In order to gather this demand data, BellSouth identified Third Party Providers by their two-six code (the code which identifies each link-set with a carrier/customer), and then monitored the volume of SS7 messages over

these link-sets using the Agilent Link Monitoring System. This monitoring system is employed by BellSouth for the purposes of collecting AMA data regarding SS7 usage (by ISUP and TCAP messages). Demand data was gathered in the February/March 2001 timeframe. The volume of messages for the observation period was then annualized. This annualized volume was then reduced by a rate of 5% annually, representing demand growth over the 1999/2000 time frame. This demand adjustment adequately represents the growth rate of SS7 usage across all accounts for BellSouth.

Appendix A Workpaper TS-1 shows the ISUP demand of 127,982,699,389 messages and TCAP demand of 20,419,008,994 messages. This demand generates revenue of \$6,990,933 as shown in Appendix A Workpaper SUM-A. BellSouth proposes to offset this additional revenue by reducing Local Switching rates by \$6,974,580 as shown in Appendix A Workpaper TS-1.