

ORIGINAL

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

BELLSOUTH TELECOMMUNICATIONS, INC.
REBUTTAL TESTIMONY OF IKE BYRD
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 991237-TP
MARCH 1, 2000

Q. PLEASE STATE YOUR NAME, EMPLOYER AND ADDRESS.

A. My name is Isaac (Ike) N. Byrd. I am employed by BellSouth Telecommunications, Inc. (hereinafter referred to as "BellSouth" or "The Company"). My present position is Manager – Federal Regulatory. My business address is 675 West Peachtree Street, N.E., Atlanta, Georgia, 30375.

Q. PLEASE GIVE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL BACKGROUND AND COMPANY EXPERIENCE.

A. I graduated from Auburn University in Auburn, Alabama in 1969 with a Bachelor of Electrical Engineering degree and from Georgia State University in Atlanta, Georgia in 1979 with a Master of Business Administration degree with a major in Finance. I began employment with the Western Electric Co., Defense Activities Division in 1970 in project management. In 1973, I transferred to Southern Bell in Jacksonville, Florida and held various positions in the Network Equipment Engineering Department before joining the Southern Bell Headquarters Service Costs organization in 1975 in Atlanta, Georgia. Following several years of developing switched services cost studies for tariff filings and rate cases, I

1 transferred to the Southern Bell Headquarters Rates and Tariffs organization in
2 1984 developing tariffs for various switched services. In 1987, I transferred to my
3 current position in BellSouth Federal Regulatory where I have had increasing
4 responsibility for the docket and issue management of various access and
5 related services.

6
7 Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY PROCEEDINGS
8 BEFORE ANY COMMISSION?

9
10 A. Yes, I testified previously in Florida Docket No. 820294-TP.

11
12 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

13
14 A. The purpose of my testimony is to present BellSouth's analysis of Mr. Langin-
15 Hooper's Direct Testimony Exhibit JLH-2, "Estimated Overcharges of Intrastate
16 Carrier Common Line Charges to AT&T by BellSouth in Florida", filed January
17 31, 2000, for the services listed below:

18 (a) call forwarding (CF);

19 (b) call waiting (CW);

20 (c) three-way calling (3W);

21 (d) foreign exchange (FX);

22 (e) voice messaging that utilize call forwarding (VM-CF);

23 (f) voice messaging message retrieval (VM-MR);

24 (g) routing to paging.

25

1 In addition, I will present BellSouth's studies of Florida - AT&T Intrastate Carrier
2 Common Line (CCL) Charges for following services: (1) Call Forwarding, and (2)
3 Foreign Exchange.

4
5 The Rebuttal Testimony of Messrs. Hendrix, Milner, and Scollard will address
6 other aspects of Messrs. Langin-Hooper's and Guepe's Direct Testimony. As is
7 demonstrated in Mr. Hendrix testimony, BellSouth has no liability to AT&T
8 whatsoever. My testimony presents an analysis of AT&T's overcharge estimates
9 and will show that, even if the Commission were to rule in AT&T's favor, its
10 overcharge estimates are unsubstantiated and in many cases plainly incorrect.

11
12 Q. WHAT ARE THE ALLEGED OVERCHARGE AMOUNTS FOR BELLSOUTH
13 IN FLORIDA THAT YOU WILL BE ANALYZING IN THE FIRST PORTION OF
14 YOUR TESTIMONY AND WHAT IS BELLSOUTH'S POSITION ON AT&T'S
15 ALLEGED OVERCHARGES?

16
17 A. Mr. Langin-Hooper's Exhibit JLH-2 ("Exhibit JLH-2"), Page 12 of 12, presents the
18 overcharge amounts alleged by AT&T for the period 1988 - 1999 related to seven
19 services provided by BellSouth. The sum total of the AT&T alleged overcharges
20 is \$52.34 million. In Exhibit JLH-2, AT&T provides 11 pages of information
21 generally describing scant data sources and sketchy study methodology. From
22 this shaky beginning, AT&T makes a huge, and largely unfounded leap to alleged
23 overcharge amounts by year and service. In the end, AT&T alleges that
24 BellSouth owes it an incredible \$52 million! It is incomprehensible to expect the
25 Commission or BellSouth to be able to draw any reasonable conclusions as to

1 the validity of the \$52 million allegation based on this scarce level of detail. This
2 meager level of study documentation does not even remotely approach the
3 threshold needed for AT&T to justify its overreaching demands. As the following
4 testimony will show, the Commission should conclude that, even if AT&T could
5 show that it had been overcharged, its alleged overcharge estimates are not
6 even in the right ballpark.

7
8 AT&T fails to provide fundamental supporting data that is needed to support its
9 wild claims. For example, in order to evaluate AT&T's alleged overcharge data,
10 methodologies, and results, the Commission and BellSouth would need such
11 data as service growth rates, CCL rates, number of sample NPA-NXXs, and
12 number of sample minutes by service. AT&T provides none of these. AT&T's
13 claims are replete with other flaws, as will be shown below.

14
15 Q. PROVIDE A GENERAL OVERVIEW OF AT&T'S OVERCHARGE STUDY
16 METHODOLOGIES.

17
18 A. AT&T uses two different study methodologies, one for CF, CW, and 3W and
19 another for FX, VM-CF, VM-MR, and routing to paging. For CF, CW, and 3W, a
20 sample of data was taken over a two-week period in 1994, expanded to estimate
21 a full quarter, grown forward 5 plus years through 1999, and cast backwards 6
22 plus years to 1988 to estimate alleged BellSouth CCL overcharges for this 12
23 year period. For FX, VM-CF, VM-MR, and routing to paging, AT&T did not have
24 any sample data from which to estimate its alleged overcharges. Therefore, for
25 these services, AT&T uses a variety of assumptions on the number of customers

1 and call volumes to estimate numbers of alleged overcharge minutes of use and
2 overcharges associated with these services.

3
4 Q. ARE "AT&T'S DATA SOURCES" FOR CF, CW, AND 3W WHICH ARE
5 DESCRIBED IN EXHIBIT JLH-2, SECTION II, B, CLEAR AND RELIABLE?

6
7 A. No. AT&T provides very little information from which anyone could evaluate its
8 data sources and what it does provide is not clear. For example, on page 7 of
9 12, AT&T talks about how an original "5% sample of about 2500 NPA-NXXs" that
10 "created significant processing difficulties" was reduced by using only those
11 NPA-NXXs that had a "4" in the second position of the NXX. Further,
12 "processing requirement were [sic] reduced by a factor of ten" by making this
13 change. What does not make sense is the following statement: "A total of 1851
14 active NPA-NXXs met this criteria, and 1538 were associates [sic] with the BOCs
15 and major independents, yielding an average 3% sample for each LEC study
16 area (emphasis added)." It is not clear how processing could be "reduced by
17 about a factor of ten" when the original sample of "about 2500 NPA-NXXs" was
18 only reduced to the "1851" and "1538" numbers referenced above. This is not a
19 ten fold reduction in NPA-NXXs.

20
21 The underlined quote above of "yielding an average 3% sample for each LEC
22 study area" also presents a concern as to the validity of the sample number of
23 NPA-NXXs selected in the BellSouth Florida franchise area. Because AT&T did
24 not provide the number of sample NPA-NXXs for Florida, the word "average" is
25 the concern. For example, an average sample size of 50 could be very

1 misleading for a given state if one state had a sample size of 10 and the other 90
2 which would produce an average sample size of 50.

3
4 Another AT&T statement that is of concern is as follows: "Any specific value of
5 the second position [in an NXX] would be unlikely to be associated with a
6 particular geographic distribution of LEC exchanges, maintaining the random
7 nature of the selection." (See Page 7 of 12) This sounds reasonable on its face,
8 but in practice it may not work out as smoothly as evidenced in the data filed by
9 AT&T in its similar interstate CCL complaint against BellSouth. See In Matter of
10 AT&T Corp., Complainant, v. BellSouth Telecommunications, Inc., Defendant,
11 File No. E-95-10, Verified Amended Supplemental Complaint, dated March 18,
12 1999, ("AT&T's Interstate Complaint Study"), Appendix 2 Worksheets for each
13 BellSouth state, "Sample NPANXX Count". The values for sampled NPA-NXXs
14 are as follows for the BellSouth states: (a) AL = 23, (b) FL = 39, (c) GA = 21, (d)
15 KY = 13, (e) LA = 50, (f) MS = 30, (g) NC = 2, (h) SC = 13, and (i) TN = 27.
16 Sampling in the BellSouth states ranges from a high of 50 in Louisiana to a low of
17 only 2 in North Carolina. This data filed by AT&T clearly shows that the
18 statement claiming that, "Any specific value of the second position [in an NXX]
19 would be unlikely to be associated with a particular geographic distribution of
20 LEC exchanges, maintaining the random nature of the selection," is not always
21 true when actual data is reviewed and is certainly not true in Florida if AT&T used
22 the same study data here that AT&T used in conjunction with its interstate CCL
23 complaint. This provides further evidence of a flawed study methodology.

24

1 Another data source flaw from Page 7 of 12 is AT&T's fourteen-day study period
2 of April 1, 1994 through April 14, 1994. This study period is flawed because it
3 included the 1994 Easter holiday. AT&T states the holiday "offered some of the
4 variation in calling patterns associated with holidays while not swamping the
5 sample data series with vast differences in calling patterns". Because
6 AT&T collected only 2 weeks of study data, it is likely that AT&T extrapolated
7 these 2 weeks over a full 52 week year. Such an extrapolation would require an
8 expansion of the data by a factor of 26, and would carry the built-in assumption
9 that there are 26 "Easter-sized" holiday weekends per year - 1 every 2 weeks.
10 Thus, AT&T introduced an unjustifiable bias by including a major holiday
11 weekend in its study.

12
13 Together with the dearth of supporting data, these flaws in AT&T's study
14 methodology raise serious concerns about the validity of AT&T's sampling study
15 as the foundation of their overcharge calculations for CF, CW, and 3W.

16
17 Q. IS AT&T'S "BASIS FOR DETERMINING OVERLAPPING CALLS", EXHIBIT JLH-
18 2, SECTION II, C., PAGES 7 AND 8 OF 12, RELIABLE?

19
20 A. No. As with their "Data Sources" Section, AT&T provides almost no description
21 of the criteria used to determine whether a call was categorized as CF, CW, or
22 3W. In order to reasonably evaluate AT&T's methodology for capturing calls that
23 had overlapping minutes and categorizing them as CF, CW, or 3W, much more
24 detailed information on the criteria used is needed.

25

1 Q. IS AT&T'S CALL FORWARDING STUDY METHODOLOGY AND
2 OVERCHARGE ESTIMATE RELIABLE?

3
4 A. No. The relation between "Total Calls/Access-Billed Calls" that AT&T apparently
5 claims is relevant is a smokescreen designed to mask the fact that a CCL charge
6 is always appropriate in intraLATA call forwarding situations. In the remainder of
7 this paragraph and the next two paragraphs, my discussion works through
8 AT&T's scarce support information making the best effort to derive AT&T's 16.66
9 expansion factor referenced in Exhibit JLH-2, and then shows why the inclusion
10 of "Total Calls/Access-Billed Calls" as a part of the 16.66 is incorrect. In Exhibit
11 JLH-2, Section II, A., "Estimation of Occurrences of Overbilling", Pages 3 to 5 of
12 12, AT&T describes its methodology for estimating the AT&T-only call forwarding
13 minutes of use (MOUs) from its 14-day 1994 study. The first expansion
14 adjustment introduced is a "1/AT&T Market Share" factor. AT&T fails to explain
15 why such a factor should be used. On Page 4 of 12, AT&T assumes a 60%
16 market share which results in a factor of 1.66 (100%/60%); however, the 1.66
17 factor is not shown in AT&T's Exhibit JLH-2. In addition, AT&T does not indicate
18 where this market share comes from, if or whether it is any average, a snapshot,
19 etc. AT&T apparently multiplied this 1.66 factor by the sampled data to attempt
20 to estimate the number of calls terminated to the call-forwarded line by AT&T and
21 then forwarded by another carrier, as well as calls terminated to the call-
22 forwarded line by another carrier and then call-forwarded to AT&T. Because of
23 the lack of information provided by AT&T, there is no way for the Commission to
24 assess whether or not AT&T's factor is correct.

25

1 The second method AT&T used to massage the suspect sample data is
2 introduced on Page 4 of 12. AT&T then applies the factor it calls "Total
3 Calls/Access-Billed Calls". AT&T assumes 10% to be "a fairly typical value" for
4 the relationship of Access-Billed Calls to Total Calls. Because no explanation is
5 given, one must assume that Total Calls includes interstate, intrastate-interLATA,
6 intrastate-intraLATA, and local calls. AT&T's calculation of "Total Calls/Access-
7 Billed Calls" is not shown in Exhibit JLH-2. Accordingly, one must speculate, but
8 BellSouth supposes it to be 10.0 (100%/10%) from AT&T's example where
9 Access-Billed calls are 10% of all calls. AT&T does introduce a factor of 16.66
10 on Page 4 of 12 and alleges that for originating CCL access charges they were
11 overbilled an estimated 16.66 times the number of MOUs that AT&T observed in
12 its 14 day study period. On Page 5 of 12, AT&T further alleges that for
13 terminating CCL access charges they again were overbilled an estimated 16.66
14 times the number of MOUs that AT&T observed in its 14 day study period. The
15 derivation of this 16.66 factor is not shown in Exhibit JLH-2; however, BellSouth
16 supposes that it is the product of the two factors discussed above, i.e. 1.66 times
17 10.0. Use of the 10.0 factor increases AT&T's access-billed only call forwarding
18 MOUs derived from the sample data to a figure representing MOUs attributable
19 to calls originating within the same LATA as the call forwarded line and
20 subsequently call forwarded intrastate by AT&T. This same factor of 10.0 is used
21 to calculate MOUs attributable to call arrangements in which AT&T transports an
22 intrastate access-billed call that terminates to a call forwarded number and is
23 then call forwarded intraLATA. AT&T's actual call sample data could not capture
24 either of these call forwarding scenarios. Importantly, BellSouth's data
25 demonstrates that the relationship of "Access-Billed Calls to Total Calls" used

1 above by AT&T is approximately 16-20% for Florida and not the 10% claimed by
2 AT&T. See my Exhibit CF-A.

3
4 Even if shown that AT&T's assumptions regarding factors are correct, an
5 additional flaw with AT&T's approach is the fact that this multiplication by 10.0
6 should not be performed at all in determining originating or terminating
7 overcharges. As the FCC confirmed in its December 9, 1998 Memorandum
8 Opinion and Order regarding complaints similar to the instant complaint, ("FCC
9 Liability Order"), for local exchange carrier (LEC) handled calls that originate or
10 terminate to a call forwarded line from a point in the same LATA, the originating
11 or terminating line is clearly used, and the LEC is permitted to assess originating
12 or terminating CCL charges for the line actually used in the originating or
13 terminating intraLATA location. These charges that BellSouth could have
14 charged are the equivalent of, and therefore an offset to, the originating CCL
15 charges at the intermediate call forwarding location that BellSouth did charge.
16 The same offset principle would apply for terminating CCL charges in that the
17 terminating CCL charges that BellSouth could have billed for the use of the
18 common line on which the call terminates would be exact offsets to the CCL
19 charges that BellSouth did bill at the intermediate call forwarding location.
20 Therefore, AT&T's factor for Total Calls/Access-Billed Calls should be removed.
21 Removal of the factor thus reduces the alleged overcharges by a factor of 10.0
22 when using the sample values presented by AT&T.

23
24 Even if it were appropriate to multiply by the factors that AT&T suggests, which it
25 is not, it appears the factor actually used in AT&T's calculations is different. For

1 example, AT&T states in Exhibit JLH-2, Page 5 of 12, "For each state study area,
2 the magnitude of the total overbilling for call forwarding was estimated by
3 expanding the observed totals by the specific factor calculated as described
4 above (emphasis added) to reflect the expected ratio of total occurrences for
5 each observed occurrence." Because we do not have the actual data used, we
6 can only speculate what factor was used by AT&T. However, if the earlier
7 referenced AT&T Interstate Complaint Study is any indicator, the factor used by
8 AT&T is slightly greater than 13. From the AT&T Interstate Complaint Study,
9 Appendix 2 Worksheets for Florida, AT&T states that Interstate/Total Calls is
10 7.65%. The expansion factor used in its calculation formulas is Total
11 Calls/Interstate Calls is 13.07 when using 100%/7.65%. As BellSouth states in
12 its objections to AT&T's 1st Set of Interrogatories, filed January 27, 2000, AT&T's
13 overcharge claims for CF for 1988 to 1992 (\$.88M) are irrelevant due to Statute
14 of Limitations. The resulting amount for the 1993 to 1999 period is \$2.71M.
15 When this \$2.71M is reduced by the factors of 10 and 13 discussed above, the
16 result is \$.271M and \$.208M, respectively, for CF. Since BellSouth does not
17 know whether AT&T used an expansion factor of 10 or 13 or possibly something
18 even larger, the significant reductive impact of division by both is shown. See
19 BellSouth's Florida - AT&T Intrastate CF CCL Charges Study. (Exhibit CF-E)

20
21 **Q. ARE AT&T'S CALL WAITING AND 3-WAY CALLING STUDY**
22 **METHODOLOGIES AND OVERCHARGE ESTIMATES RELIABLE AND**
23 **ACCURATE?**
24

1 No. Exhibit JLH-2, Section II, A., Page 5 of 12, states "For call waiting and three
2 way calling, similar expansion factors were used to assure that the instances of
3 observed call interactions in AT&T's data for these services was expanded to
4 estimate the total volume of all call interactions involving these services." Based
5 on this, CW and 3W are inflated by the same factor of 10 or more as was CF. As
6 BellSouth states in its objections to AT&T's 1st Set of Interrogatories, filed
7 January 27, 2000, AT&T's overcharge claims for CW for 1988 to 1992 (\$4.50M)
8 are irrelevant due to Statute of Limitations. The resulting amount for the 1993 to
9 1999 period is \$13.90M. When this \$13.90M is reduced by the factors of 10 and
10 13 discussed above, the result is \$1.39M and \$1.07M, respectively, for CW.
11 Since BellSouth does not know whether AT&T used an expansion factor of 10 or
12 13 or possibly something even larger, the significant reductive impact of division
13 by both is shown.

14
15 As BellSouth states in its objections to AT&T's 1st Set of Interrogatories, filed
16 January 27, 2000, AT&T's overcharge claims for 3W for 1988 to 1992 (\$4.26M)
17 are irrelevant due to Statute of Limitations. The resulting amount for the 1993 to
18 1999 period is \$12.94M. When this \$12.94M is reduced by the factors of 10 and
19 13 discussed above, the result is \$1.29M and \$.99M, respectively, for 3W. Since
20 BellSouth does not know whether AT&T used an expansion factor of 10 or 13 or
21 possibly something even larger, the significant reductive impact of division by
22 both is shown.

23

1 Q. ARE AT&T'S FOREIGN EXCHANGE, VOICE MAIL, FAX PROCESSING, AND
2 PAGING SERVICES STUDY METHODOLOGIES AND OVERCHARGE
3 ESTIMATES RELIABLE AND ACCURATE?
4

5 A. No. AT&T's FX, VM-CF, VM-MR, and Paging estimates are based on call
6 volume assumptions rather than the data sources in Exhibit JLH-2, Section II, B
7 as was CF, CW, and 3W. Fax processing is discussed by AT&T; however, no
8 overcharge estimates were developed as they state the following in Exhibit JLH-
9 2, Page 8 of 12, "Fax processing services were determined to be too limited for
10 any meaningful assumptions about daily occurrence to be developed."
11

12 Notwithstanding that AT&T's calculation of CF, CW, and 3W overcharges
13 displays the flaws outlined previously, they were at least purported to be
14 supported by a study with actual sample data. By contrast, FX, VM-CF, VM-MR,
15 and Paging calculations appear to be based on little or no data related to actual
16 calls. AT&T states in Exhibit JLH-2, Section II, A., Page 5 of 12, "For AT&T calls
17 to and from specific telephone numbers associated with other services such as
18 FX, voice mail, fax processing, and paging services, the data was severely
19 limited by the small sample of telephone numbers available.
20 Accordingly, assumptions (emphasis added) were developed which reflected a
21 reasonable estimate of the occurrence of inappropriate access billing associated
22 with those services." Indeed AT&T's analysis of these overcharge estimates is
23 made entirely of assumptions. Exhibit JLH-2's description of the FX, VM-CF,
24 VM-MR, and Paging methodologies are replete with the phrases "assumption",
25 "were assumed", and "was assumed".

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

Many of these estimates are unreliable or perhaps incorrect. For example, on Page 5 of 12, the first assumption was made that an average of 3000 single line business and residential analog lines are served by each NPA-NXX. This may or may not have any relationship to BellSouth NPA-NXXs. A major concern with this section, in addition to the number of assumptions made, is the appearance that all data assumptions apply to all state study areas without regard to differences in how services may have developed in each defendant LEC's service area. AT&T used the same data in its Interstate Complaint referenced earlier in my testimony. Due to the absence of valid support data, the study of these services and the resulting overcharge estimates would not be valid even at the national level, much less when disaggregated to the individual state level.

For FX, Exhibit JLH-2, Page 5 of 12, states "Of those lines [3000], .2% (two-tenths of a percent) were assumed to be FX and FX-like lines." Later, AT&T states, "Thus, six (6) FX and FX-like lines were assumed for each NPA-NXX....." The assumption has no support whatsoever. The section continues with assumption after assumption in order to estimate the base quarter. The base quarter is then extrapolated 5 years into the future to 1999 and 6 years historically to get to 1988 with more assumptions. Errors made in calculating a base quarter are magnified by this extrapolation 5 years into the future and 6 years into the past. As BellSouth states in its objections to AT&T's 1st Set of Interrogatories, filed January 27, 2000, AT&T's overcharge claims for FX for 1988 to 1992 (\$1.42M) are irrelevant due to Statute of Limitations. The resulting

1 amount for the 1993 to 1999 period is \$2.01M. See BellSouth's Florida - AT&T
2 ~~Intrastate~~ FX CCL Charges Study. (Exhibit FX-A)

3
4 For VM-CF and VM-MR, "Five percent (5%) were assumed to subscribe to voice
5 mail services....". Once again the calculation begins with an unsubstantiated
6 assumption. The same unsubstantiated assumptions are used to project 5 years
7 forward and backward 6 years which only serves to exacerbate any errors in the
8 assumptions.

9
10 Regardless of AT&T's study alleging otherwise, the overcharge amounts are zero
11 for VM-CF and VM-MR. As the FCC confirmed in its December 9, 1998 Liability
12 Order, a terminating CCL charge would be appropriate for common lines used by
13 a VM platform to accumulate calls forwarded to it for storage for customers of its
14 voicemail service or for calls to the VM platform for message retrieval (MR).
15 BellSouth's VM service does use common lines for calls coming into its
16 platforms. Therefore, for those calls that AT&T handles that terminate to a
17 telephone number that forwards the call to a VM platform or for those calls that
18 AT&T handles that terminate on a VM platform for the purpose of MR, a
19 terminating CCL charge would be appropriate for the common line used to
20 terminate to the VM platform. Though this terminating CCL charge for the use of
21 the VM platform common line is not actually charged today, it would be equal to
22 the terminating CCL charge that is charged at the intermediate CF line location.
23 These two charges would be equal and would offset each other such that there
24 would zero BellSouth overcharges for VM-CF and MR.

25

1 For Paging, "... 0.5% (one half of one percent) were assumed to be
2 **associated** with paging services." This calculation like those discussed above
3 **produces suspect results**. As BellSouth states in its objections to AT&T's 1st Set
4 of Interrogatories, filed January 27, 2000, AT&T's overcharge claims for paging
5 for 1988 to 1992 (\$.43M) are irrelevant due to Statute of Limitations. The
6 resulting amount for the 1993 to 1999 period is \$1.75M. This remainder needs
7 further reductions to reflect erroneous AT&T assumptions. As noted in Mr.
8 Hendrix's testimony, BellSouth stopped CCL billing for calls to paging services in
9 March 1996. Even if AT&T overcharge estimates were accurate, the \$1.75M
10 must be further reduced by \$1.13M which is the amount AT&T estimated for
11 overcharges for the period of April 1996 to yearend 1999.

12
13 Additionally, Exhibit JLH-2, Page 6 of 12, states that AT&T uses one-half minute
14 as an average duration of a call to a paging service. BellSouth has determined
15 that the paging industry uses an average of 20 to 25 seconds as the average call
16 to a pager, not 30 seconds as AT&T uses in its calculations. Therefore, AT&T's
17 estimate is further reduced by a factor of 33% ($(30 \text{ secs.} - 20 \text{ secs.})/30 \text{ secs.}$) to
18 reflect 20 seconds as the average, rather than AT&T's 30 seconds. When all
19 these reductions are factored into AT&T alleged overcharge amount, the result is
20 **\$.42M**. Therefore, BellSouth's maximum overcharge exposure for paging is
21 **\$.42M, not the \$2.18M as AT&T alleges**.

22
23 Q. MR. BYRD, DOES THIS COMPLETE THE FIRST PORTION OF YOUR
24 TESTIMONY REGARDING BELL SOUTH'S ANALYSIS OF AT&T'S
25 ESTIMATED INTRASTATE CCL OVERCHARGES IN EXHIBIT JLH-2?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A. Yes.

Q. WHAT STUDIES HAS BELLSOUTH PERFORMED RELATED TO AT&T'S CCL OVERCHARGE COMPLAINT IN FLORIDA?

A. BellSouth has performed CCL charges studies for CF and FX.

Q. WHY DIDN'T YOU STUDY CW AND 3W?

A. BellSouth did not perform any CCL charges studies for CW or 3W because the FCC's December 9, 1998 Liability Order concluded that BellSouth and the other LECs billed CCL charges appropriately related to these services. Therefore, for CW and 3W there are no overcharges. However, if the Commission were to decide that BellSouth had liability for CCL charges associated with CW and 3W, BellSouth requests that it be allowed adequate time to develop such studies before any damage amounts for these services are determined.

Q. PLEASE DESCRIBE BELLSOUTH'S FLORIDA - AT&T INTRASTATE CF CCL CHARGES STUDY.

A. BellSouth developed the CF CCL Charges Study in order to provide a reasonable estimate of CF CCL charges based on the FCC's December 9, 1998 Liability Order. An intrastate call-forwarding ratio for each year was developed from a special study of all AT&T intrastate calls that were call forwarded for the

1 study period. Actual 1993-1999 originating and terminating access minutes of
2 use (MOUs) for AT&T were then multiplied by the call forwarding ratio to produce
3 intrastate call forwarded MOUs by year. These call forwarded MOUs were then
4 multiplied by the applicable CCL rate per MOU to produce CF CCL charges by
5 year. The CF CCL Charges Study is described in detail in Attachment INB-1 to
6 my testimony.

7
8 Q. WHAT ARE THE RESULTS OF BELLSOUTH'S FLORIDA - AT&T INTRASTATE
9 CF CCL CHARGES STUDY?

10
11 A. The results are approximately \$240,000 for the period 1993-1999. Exhibit CF-E
12 to Attachment INB-1 provides the study results.

13
14 Q. PLEASE DESCRIBE BELLSOUTH'S FLORIDA - AT&T INTRASTATE FX CCL
15 CHARGES STUDY.

16
17 A. BellSouth developed the FX CCL Charges Study in order to provide a reasonable
18 estimate of the FX CCL charges based on the FCC's December 9, 1998 Liability
19 Order. From a one month special study of all calls to or from all interLATA FX
20 lines in Florida, an AT&T intrastate "FX Ratio" was developed. The "FX Ratio"
21 was the result of dividing AT&T's intrastate feature group MOUs that were either
22 originated from or terminated to these interLATA FX lines by the AT&T average
23 1999 monthly intrastate feature group MOUs. "FX Ratios" were developed
24 individually for originating and terminating traffic. Actual 1993-1999 originating
25 and terminating access MOUs for AT&T were then multiplied by their respective

1 "FX Ratios" to produce yearly AT&T intrastate originating and terminating MOUs
2 for calls originating from or terminating to interLATA FX lines. These resulting
3 MOUs were then multiplied by the applicable CCL rates to produce CCL charges
4 by year. The FX CCL Charges Study is described in detail in Attachment INB-2 to
5 my testimony.

6
7 Q. WHAT ARE THE RESULTS OF BELLSOUTH'S FLORIDA - AT&T INTRASTATE
8 FX CCL CHARGES STUDY?

9
10 A. The results are approximately \$14,000 for the period 1993-1999. Exhibit FX-A to
11 Attachment INB-2 provides the study results.

12
13 Q. PLEASE SUMMARIZE AND COMPARE AT&T'S ALLEGED OVERCHARGE
14 ESTIMATES WITH BELLSOUTH'S ESTIMATES.

15
16 A. First, as stated earlier in my testimony, all of AT&T's alleged overcharges for the
17 1988 - 1992 period are irrelevant due to Statute of Limitations. Therefore, the
18 AT&T and BellSouth estimate comparisons shown below are for the period 1993
19 - 1999.

Relevant Period 1993 -1999 (All Amounts in \$M)		
Services	AT&T Overcharge Estimates	BellSouth Charges Estimates
CW	13.90	0
3W	12.94	0
CF	2.71	.240
FX	2.01	.014
VM-CF	4.64	0
VM-MR	1.75	0
Paging	1.75	.420
Total	39.70	.674

1
2
3
4
5
6
7
8
9
10
11
12
13
14

As highlighted throughout my testimony, AT&T's alleged overcharge estimates from Exhibit JLH-2 are in many cases unsubstantiated and/or based on suspect data and in other cases, clearly wrong. AT&T clearly has not met its burden of proof requirement for a complaint such as this.

BellSouth's estimates in the chart above for CF and FX are from its Florida - AT&T Intrastate CCL Charges Studies for these services which are documented in Attachments INB-1 and 2, respectively, to my testimony. For CW and 3W, BellSouth's estimates are zero because the FCC's December 9, 1998 Liability Order determined that there were no overcharges as AT&T and other carriers had alleged. In the case of VM-CF and MR, BellSouth's estimates are zero as well based on the FCC's Liability Order referenced above. The order determined that CCL charges were appropriate if VM platforms used common lines to

1 connect to BellSouth's network which is the case for BellSouth. Finally, for
2 Paging, BellSouth's estimate is the result of making several adjustments to
3 AT&T's alleged claim. These adjustments are described in my testimony.

4

5 Q. MR. BYRD, DOES THIS COMPLETE YOUR TESTIMONY?

6

7 A. Yes.

BellSouth
Florida - AT&T Intrastate Call Forwarding (CF) CCL Charges Study
Docket No. 991237-TP
Description of Study Methodology

Overview

BellSouth developed the following study methodology in order to provide a reasonable estimate of CF CCL charges associated with the above-referenced complaint. An intrastate call-forwarding ratio for each year was developed from a special study of all AT&T intrastate calls that were call forwarded for the study period. Actual 1993 - 1999 originating and terminating access minutes of use (MOUs) for AT&T were then multiplied by the call forwarding ratio to produce intrastate call forwarded MOUs by year. These call forwarded MOUs were then multiplied by the applicable CCL rate per MOU to produce CCL charges by year.

Call Forwarded Leg of Call/Second Leg (BellSouth's Originating Access Traffic)

The initial step of the study was to accumulate the available data necessary to determine the amount of intrastate traffic that was call forwarded to AT&T. The most reasonable currently available BellSouth data was associated with originating access traffic to AT&T. Call by call Automatic Message Accounting (AMA) records for all Feature Group D (FG-D) calls routed to AT&T were collected for the periods of January 10, 1999 - January 16, 1999, May 10, 1999 - May 16, 1999, and June 7, 1999 - June 13, 1999. Each call was examined and the originating and terminating telephone numbers were screened to determine if the call was intrastate. From these intrastate data, two categories of data were created for the study period and each intrastate call was assigned to one or both of the categories as follows:

Category 1 - the MOUs for each intrastate call were accumulated in the "intrastate total MOU category" for AT&T; and

Category 2 - the call was further screened to determine if the call had a call forwarding variable or remote call forwarding indicator, and, if so, the MOUs for that call were accumulated in the "intrastate call forwarded MOU category" for AT&T.

The Category 1 and Category 2 data are summarized for BellSouth's Florida billing centers in Exhibit CF-F.

Adjustments to Category 2 MOUs are necessary to properly reflect the incidence of intrastate call forwarding and to calculate estimated CCL charges subject to the FCC's December 9, 1998 *Liability Order*. The Category 2 MOUs from BellSouth's special study captures MOUs associated with the "second leg" of the call, i.e., when the call is call forwarded intrastate without regard to whether the call originated from a location that is interstate, intrastate interLATA, or intraLATA relative to the call forwarded line. An adjustment is necessary to remove those MOUs associated with a call forwarded intrastate second leg where the first leg is a call from a location within the same LATA as the call forwarded line. Category 2 includes call forwarded second leg MOUs for the call forwarding scenarios shown in Exhibits CF1, CF2, and CF3. Exhibits CF1 and CF2 show the two scenarios where BellSouth charged an originating CCL charge on the second leg, which practice the *Liability Order* determined to be inappropriate. Exhibit CF3 also shows a call forwarding scenario where BellSouth charged an originating CCL charge on the second leg that the *Liability Order* determined to be inappropriate; however, since the end-to-end nature of the call is intrastate, BellSouth could have charged an originating CCL charge for the customer line used on the first leg of the call to originate the call. These two CCL charges would be offsetting in the scenario shown on CF3. With this fact demonstrated, a downward adjustment is necessary. The data best suited to differentiate interLATA calling from intraLATA calling are BellSouth's Dial Equipment Minutes (DEM) Ratios. BellSouth's ratios used in this study are displayed on Exhibit CF-A. The interstate and intrastate DEM Ratios for 1993 - 1999 were developed from DEMs reported on BellSouth's ARMIS 43-04 reports. The intrastate interLATA, intrastate intraLATA, and local DEM ratios were developed from underlying records. The following Adjustment Factor 1 when applied as described below accomplishes the downward adjustment necessary to reflect only the appropriate calling scenarios as outlined in the FCC's December 9, 1998 *Liability Order*:

$$\text{Adjustment Factor 1('99)} = (\text{Interstate DEM Ratio '99}) + (\text{Intrastate InterLATA DEM Ratio'99})$$

Adjustment Factor 1's are calculated for each year from 1993 - 1998 using DEM ratio data and are also shown on Exhibit CF-A.

The next step is to calculate the Intrastate Call Forwarding Ratio ('99), and it is calculated as follows using Category 2 data for AT&T, Adjustment Factor 1 ('99), and Category 1 data for AT&T:

$$\text{Intrastate Call Forwarding Ratio ('99) (AT\&T)} = \frac{[\text{Category 2 MOUs X AF1('99)}]}{[\text{Category 1 MOUs}]}$$

One further adjustment is necessary to develop an Intrastate Call Forwarding (CF) Ratio for each year from 1993 to 1998 from the Category 1 and Category 2 data for AT&T and using the Adjustment Factor 1's. The Intrastate CF Ratio ('99) reflects the market penetration of call forwarding services in 1999. These services have grown since 1993, the first year relevant to the CCL Complaint, and use of the 1999 ratio for all years would overstate the charges. Therefore, a "reverse growth" adjustment is necessary to reduce the 1999 base year Intrastate CF Ratio to reflect the appropriate market penetration ratio for each year. The CF Market Penetration Ratio is developed for each year from 1993 to 1999, by dividing the number of BellSouth access lines with call forwarding by the total number of access lines using average year data. See Exhibit CF-B for these ratios by year. Adjustment Factor 2 captures the appropriate "reverse growth" and is developed as shown below:

$$\text{Adjustment Factor 2 ('98)} = \frac{\text{CF Market Penetration Ratio ('98)}}{\text{CF Market Penetration Ratio ('99) (Base Year)}}$$

Similar calculations were made to develop Adjustment Factor 2's for the years 1993 - 1997 by substituting the CF Market Penetration Ratio for each year into the numerator of the above formula while maintaining the 1999 base year CF Market Penetration Ratio in the denominator.

Next, the Intrastate CF Ratio ('98) is developed as follows:

$$\text{Intrastate CF Ratio ('98) (AT\&T)} = \frac{[\text{Category 2 MOUs X AF1('98) X AF2('98)}]}{[\text{Category 1 MOUs}]}$$

This same formula logic was followed to calculate Intrastate CF Ratios for years 1993 to 1997 for AT&T.

Once Intrastate CF Ratios are determined for AT&T by year, CCL charges subject to the *Liability Order* can be calculated for AT&T by year. These were calculated as follows:

$$\text{Originating CCL Charges for AT\&T ('99)} = \text{Originating Intrastate MOUs for AT\&T ('99)} \times \text{Intrastate CF Ratio for AT\&T ('99)} \times \text{Intrastate CCL Orig. Rate per MOU ('99)}$$

The same formula logic was followed for each year for AT&T and the results are summarized in Exhibit CF-E for AT&T. The Originating Intrastate MOUs by year are provided on Exhibit CF-C for AT&T. Intrastate Originating CCL Rates per MOU by year are provided on Exhibit CF-D.

Originating Leg of Call/First Leg of Call(BellSouth's Terminating Access Traffic)

In order to calculate CCL charges for the originating leg of the call (BellSouth's terminating access traffic), BellSouth made the assumption that the Intrastate CF Ratio is consistent for both originating and terminating access traffic. The alternative would require tracking every incoming AT&T call record and matching this with an outgoing call record to identify both legs of a call forwarded call. This approach would be more difficult and time consuming and would require a number of assumptions to produce useful data. BellSouth concluded that a study that matches incoming and outgoing calls to identify the legs of a call forwarded call with all of its assumptions would not yield significantly different results from the study methodology chosen.

Using the above assumption, BellSouth terminating access traffic charges were calculated with the following formula:

$$\text{Terminating CCL charges for AT\&T ('99)} = \text{Terminating Intrastate MOUs for AT\&T('99)} \times \text{Intrastate CF Ratio for AT\&T ('99)} \times \text{Intrastate CCL Term. Rate per MOU ('99)}$$

The same formula logic was followed for each year for AT&T and the results are summarized in Exhibit CF-E for AT&T. The Terminating Intrastate MOUs by year are provided on Exhibit CF-C for AT&T. Intrastate Terminating CCL Rates per MOU by year are provided on Exhibit CF-D. Exhibits CF4-CF6 for the originating leg/first leg of the call depict call forwarding scenarios that correspond to the call forwarding/second leg scenarios shown in Exhibits CF1- CF3.

BellSouth
Florida - AT&T InterLATA Foreign Exchange (FX) CCL Charges Study
Docket No. 991237-TP
Description of Study Methodology

Overview

BellSouth developed the following study methodology in order to provide a reasonable estimate of FX CCL charges associated with the above-referenced complaint. From a one month special study of all calls to or from all interLATA FX lines in Florida, an AT&T intrastate "FX ratio" was developed. This "FX Ratio" was produced by dividing AT&T's intrastate Feature Group (FG) minutes of use (MOUs) that were either originated from or terminated to these interLATA FX lines by AT&T's average 1999 monthly FG MOUs. "FX ratios" were developed individually for originating and terminating traffic. Actual 1993 - 1999 originating and terminating FG access MOUs for AT&T were then multiplied by their respective FX ratios to produce yearly AT&T intrastate originating and terminating MOUs for calls originating from or terminating to interLATA FX lines. These resulting MOUs were then multiplied by the applicable CCL rates to produce CCL charges by year.

Data Sources

Call by call Automatic Message Accounting (AMA) records for all calls routed to or from all the interLATA FX lines in Florida were collected for the period September 7, 1999 to October 6, 1999. Each call was examined and categorized by IXC, Feature Group, originating or terminating, and intrastate or interstate. These IXC intrastate and interstate data by Feature Group were further categorized into originating and terminating traffic. These data for AT&T are summarized for BellSouth's Florida billing centers in Exhibit FX-B.

BellSouth's Originating Access Traffic

The next step is to calculate the AT&T Originating Intrastate FX Ratio ('99), and it is calculated as follows using the results of the September 7, 1999 - October 6, 1999 special study above and the average 1999 monthly AT&T intrastate feature group MOUs:

$$\begin{array}{l} \text{Orig. Intrastate} \\ \text{FX Ratio ('99)} \\ \text{(AT\&T)} \end{array} = \frac{\text{AT\&T's Intrastate Feature Group MOUs} \\ \text{Originated from InterLATA FX Lines (Special Study)}}{\text{AT\&T Intrastate Originating Feature Group MOUs per Month} \\ \text{(Average 1999)}}$$

A further adjustment could be made to develop an AT&T Originating Intrastate FX Ratio for each year from 1993 to 1998 based on the FX Ratio ('99) above. The FX Ratio ('99) reflects the market penetration of interLATA FX services in 1999. If these services (interLATA FX lines and/or IXC calls from these lines) have grown since 1993, the first year relevant to the CCL Complaint, then the use of the 1999 ratio for all years would overstate the charges. Therefore, a "reverse growth" adjustment could be used to reduce the 1999 base year FX Ratio to reflect the appropriate market penetration ratio for each year. However, because the growth rates of these services are uncertain, BellSouth uses a conservative approach to the CCL charges estimation by using the '99 FX Ratio for '93 - '98 as well.

Once the Intrastate FX Ratio have been determined for AT&T by year, CCL charges subject to the *Liability Order* can be calculated for AT&T by year. These were calculated as follows:

$$\begin{array}{l} \text{Originating FX} \\ \text{CCL Charges for} \\ \text{AT\&T ('99)} \end{array} = \begin{array}{l} \text{Originating Intrastate} \\ \text{FG MOUs} \\ \text{for AT\&T ('99)} \end{array} \times \begin{array}{l} \text{Orig. Intrastate} \\ \text{FX Ratio for} \\ \text{AT\&T ('99)} \end{array} \times \begin{array}{l} \text{Orig. Intrastate} \\ \text{CCL Rate per} \\ \text{MOU ('99)} \end{array}$$

The same formula logic was followed for each year and the results are summarized in Exhibit FX-A for AT&T. The Originating Intrastate MOUs by year are provided on Exhibit CF-C for AT&T. Intrastate Originating CCL Rates per MOU by year are provided on Exhibit CF-D.

BellSouth's Terminating Access Traffic

The next step is to calculate the AT&T Terminating Intrastate FX Ratio ('99), and it is calculated as follows using the results of the 9/7/99 - 10/6/99 special study above and the average 1999 monthly AT&T intrastate feature group MOUs:

$$\begin{array}{l} \text{Term. Intrastate} \\ \text{FX Ratio ('99)} \\ \text{(AT\&T)} \end{array} = \frac{\text{AT\&T's Intrastate Feature Group MOUs} \\ \text{Terminated to InterLATA FX Lines (Special Study)}}{\text{AT\&T Intrastate Terminating Feature Group MOUs per Month} \\ \text{(Average 1999)}}$$

As discussed for originating, a "reverse growth" adjustment for terminating was not used to reduce the 1999 base year FX Ratio because the growth rates of these services were uncertain. BellSouth used a conservative approach to the CCL charges estimation by using the '99 FX Ratio for '93 - '98 as well.

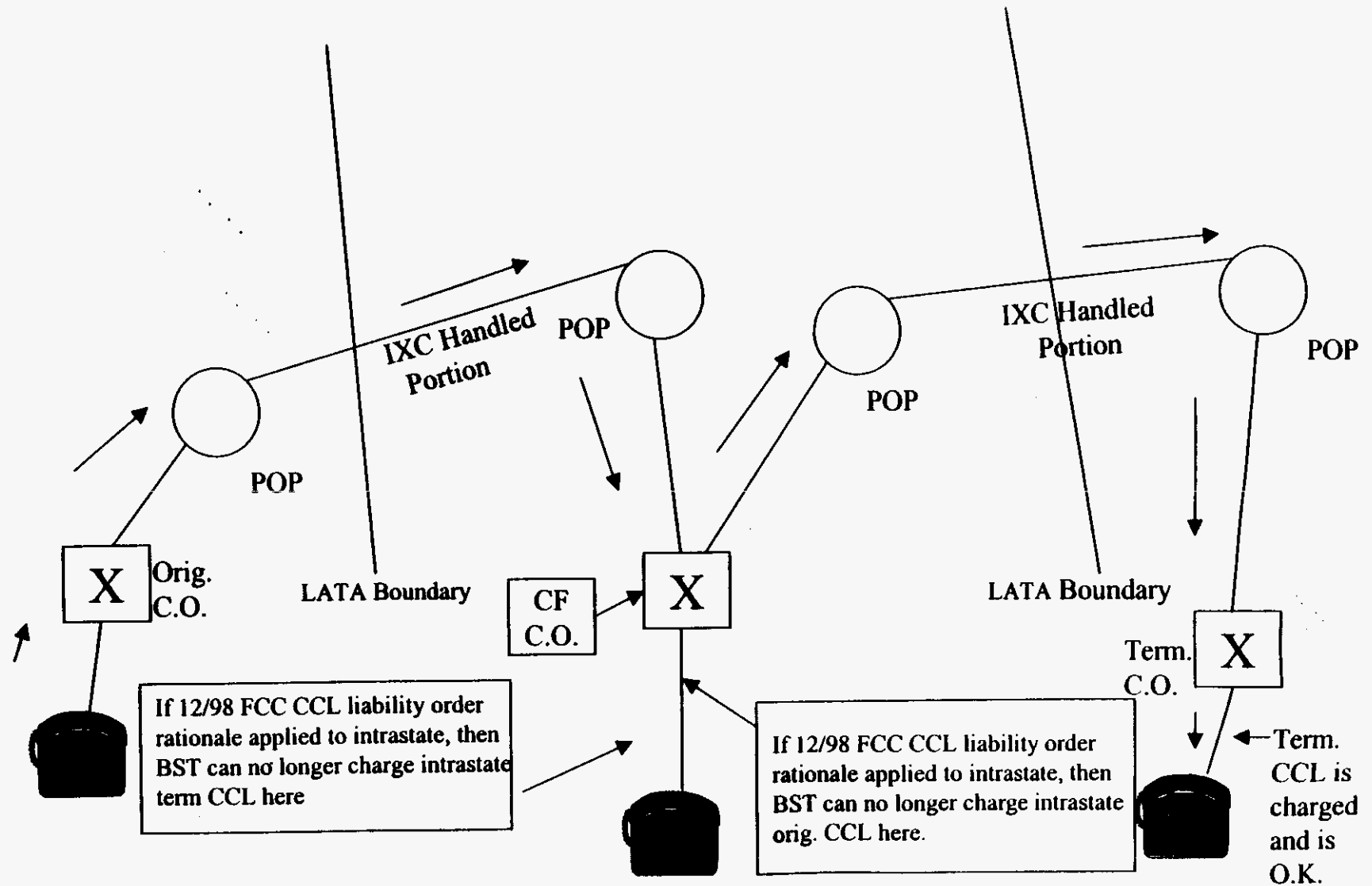
BellSouth terminating access traffic charges were calculated with the following formula:

$$\begin{array}{l} \text{Terminating FX} \\ \text{CCL Charges for} \\ \text{AT\&T ('99)} \end{array} = \begin{array}{l} \text{Terminating Intrastate} \\ \text{FG MOUs} \\ \text{for AT\&T ('99)} \end{array} \times \begin{array}{l} \text{Term. Intrastate} \\ \text{FX Ratio for} \\ \text{AT\&T ('99)} \end{array} \times \begin{array}{l} \text{Term. Intrastate} \\ \text{CCL Rate per} \\ \text{MOU ('99)} \end{array}$$

The same formula logic was followed for each year and the results are summarized in Exhibit FX-A for AT&T. The Terminating Intrastate MOUs by year are provided on Exhibit CF-C for AT&T. Intrastate Terminating CCL Rates per MOU by year are provided on Exhibit CF-D.

Originating Call Forwarding Scenarios

CF1 - Intrastate Call Terminated & Call Forwarded Intrastate, InterLATA

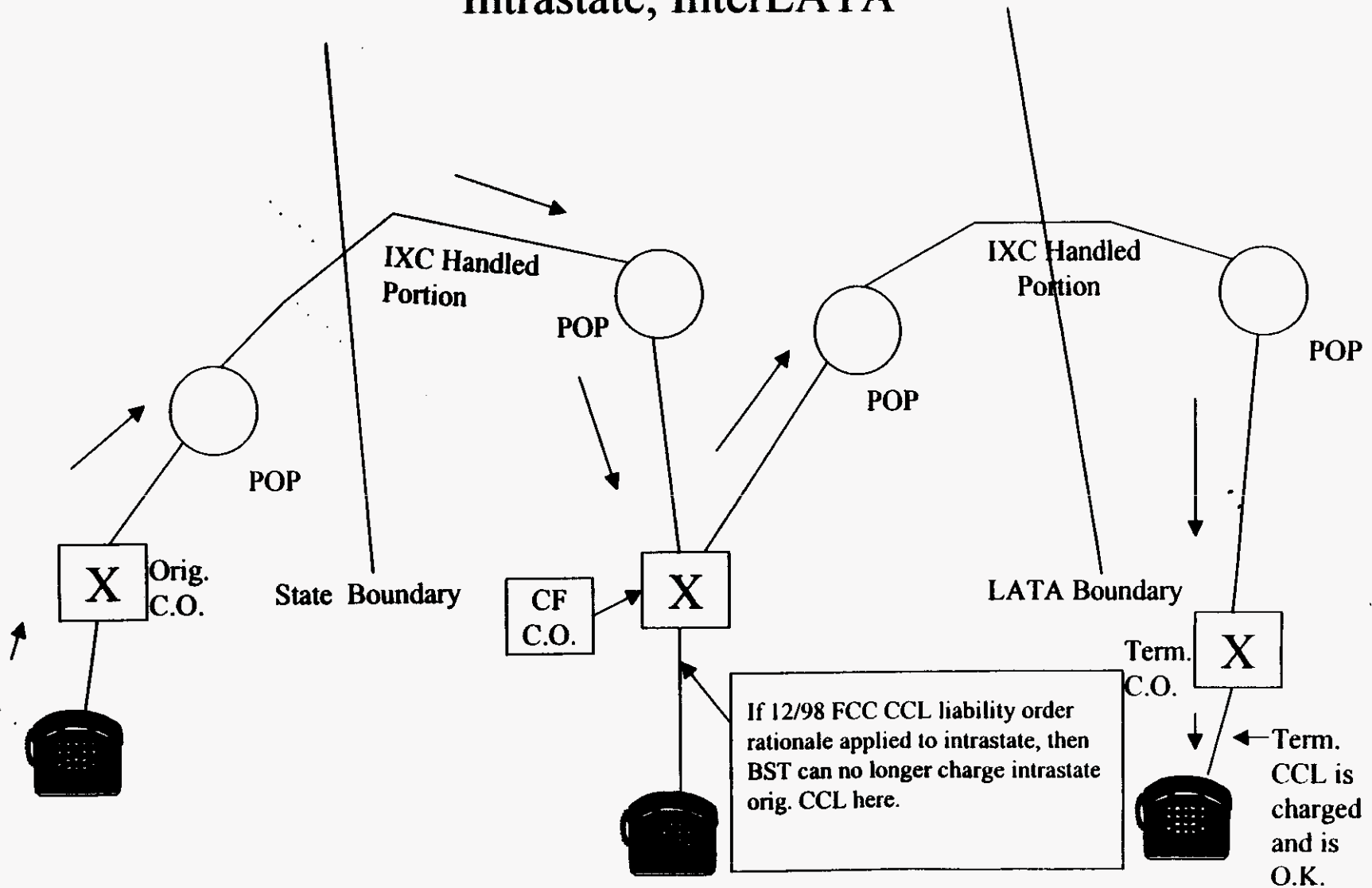


Originating Call Forwarding Scenarios

EXHIBIT CF2

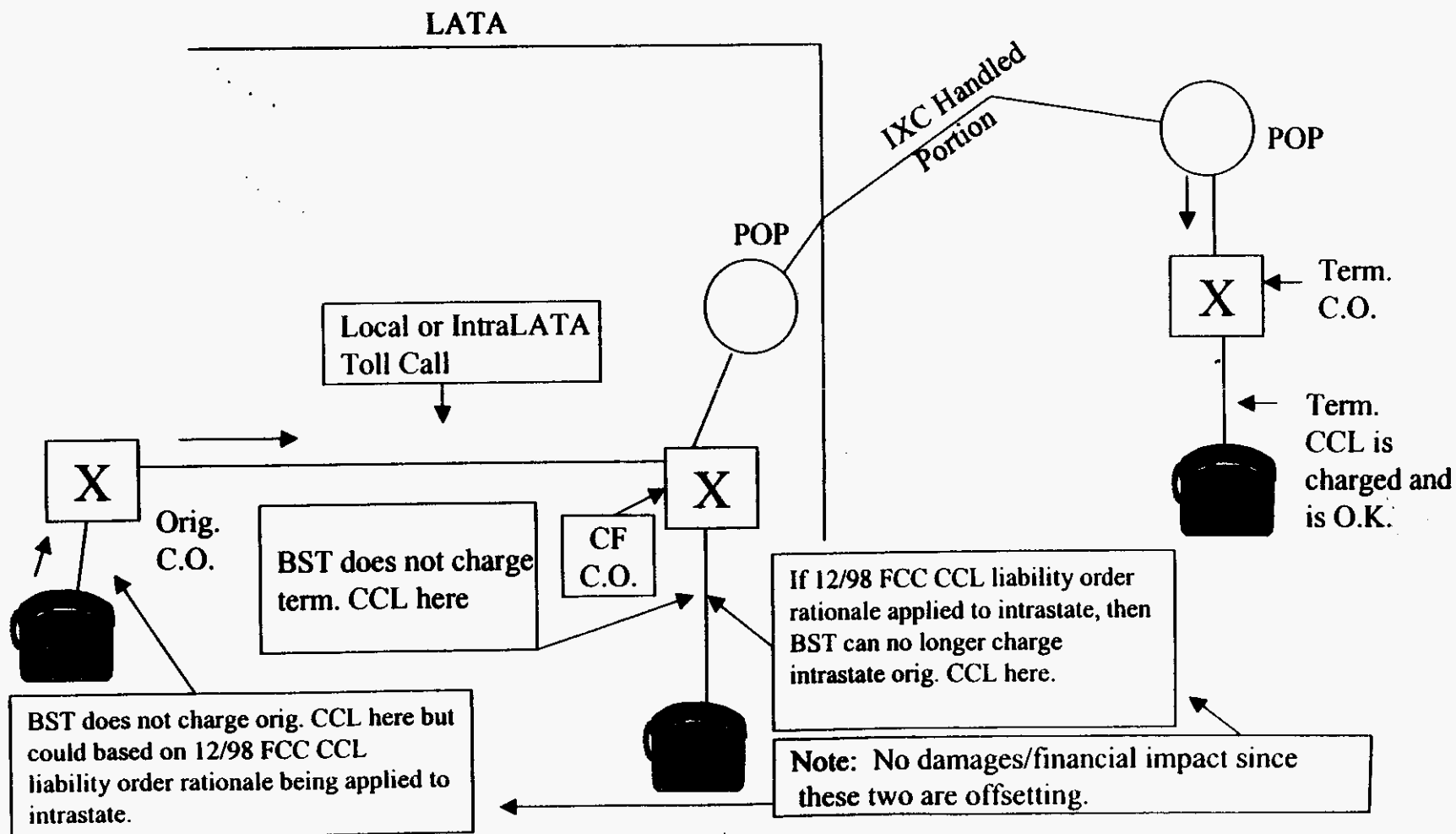
CF2 - Interstate Call Terminated & Call Forwarded

Intrastate, InterLATA



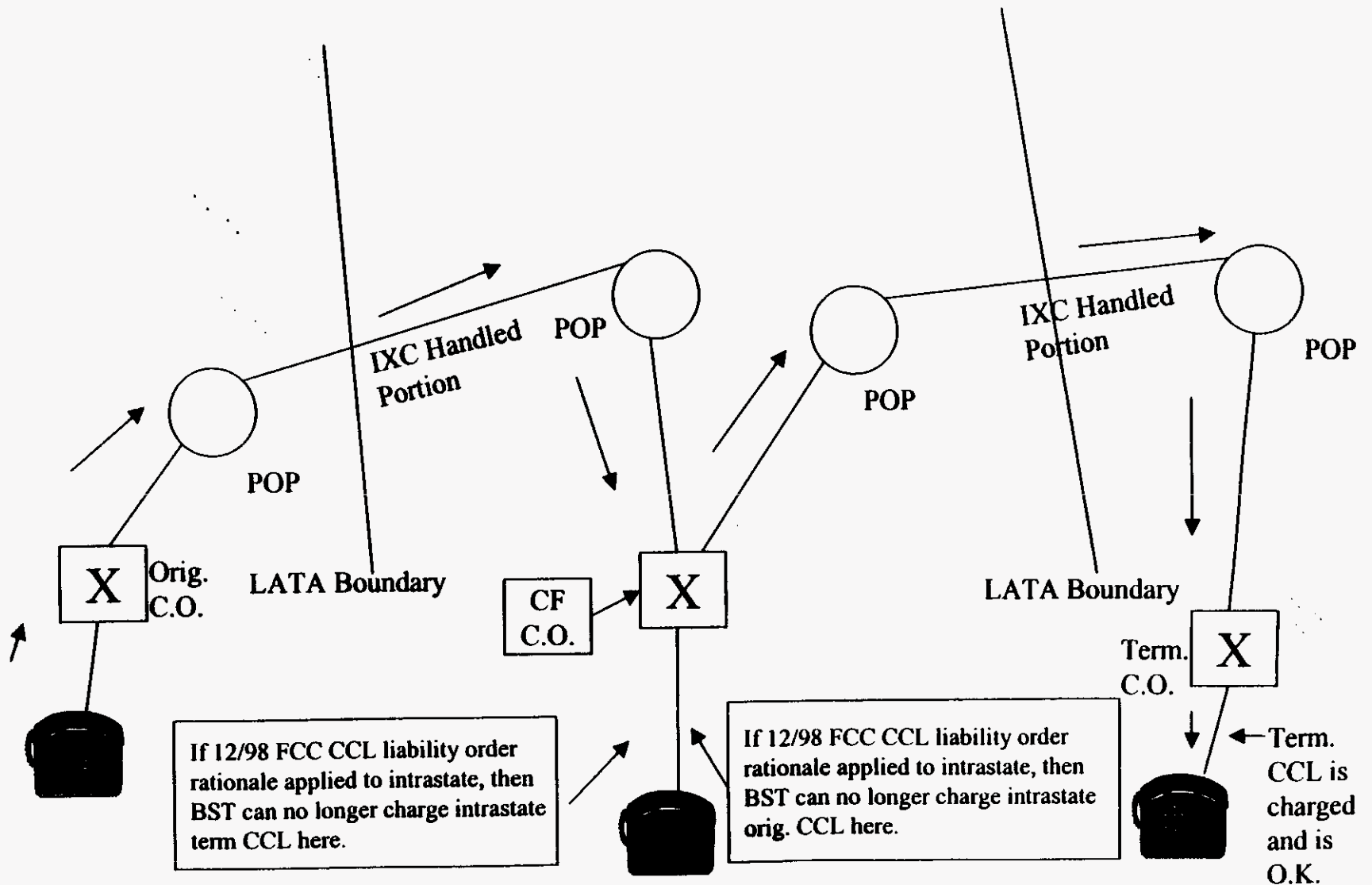
Originating Call Forwarding Scenarios

CF3 - Local/IntraLATA Toll Call Terminated & Call Forwarded Intrastate InterLATA



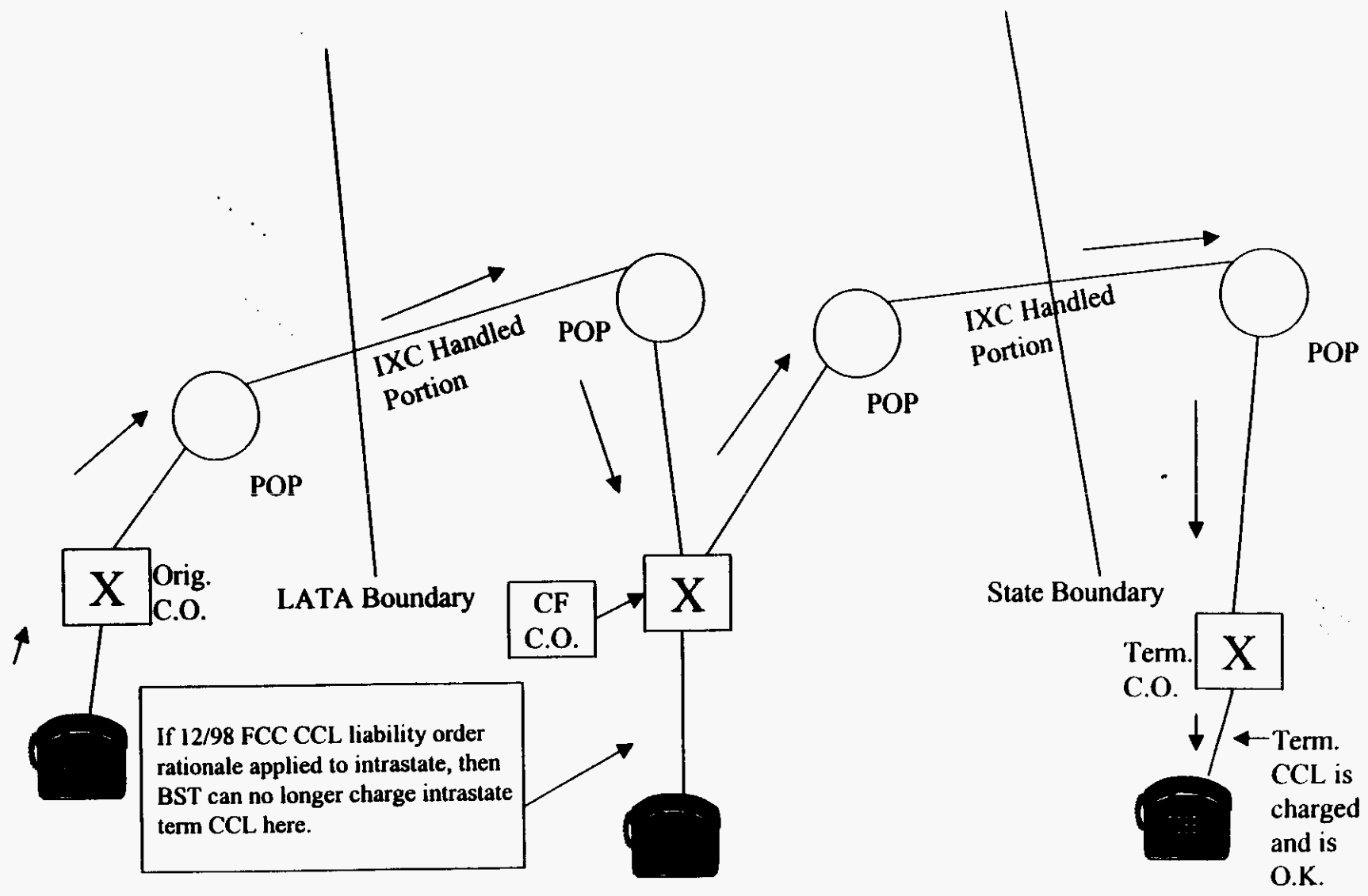
Terminating Call Forwarding Scenarios

CF4 - Intrastate Call Terminated & Call Forwarded Intrastate, InterLATA



Terminating Call Forwarding Scenarios

CF5 - Intrastate Interlata Call Terminated & Call Forwarded Interstate



Terminating Call Forwarding Scenarios

CF6 - Intrastate Call Terminated & Call Forwarded

Local or IntraLATA Toll

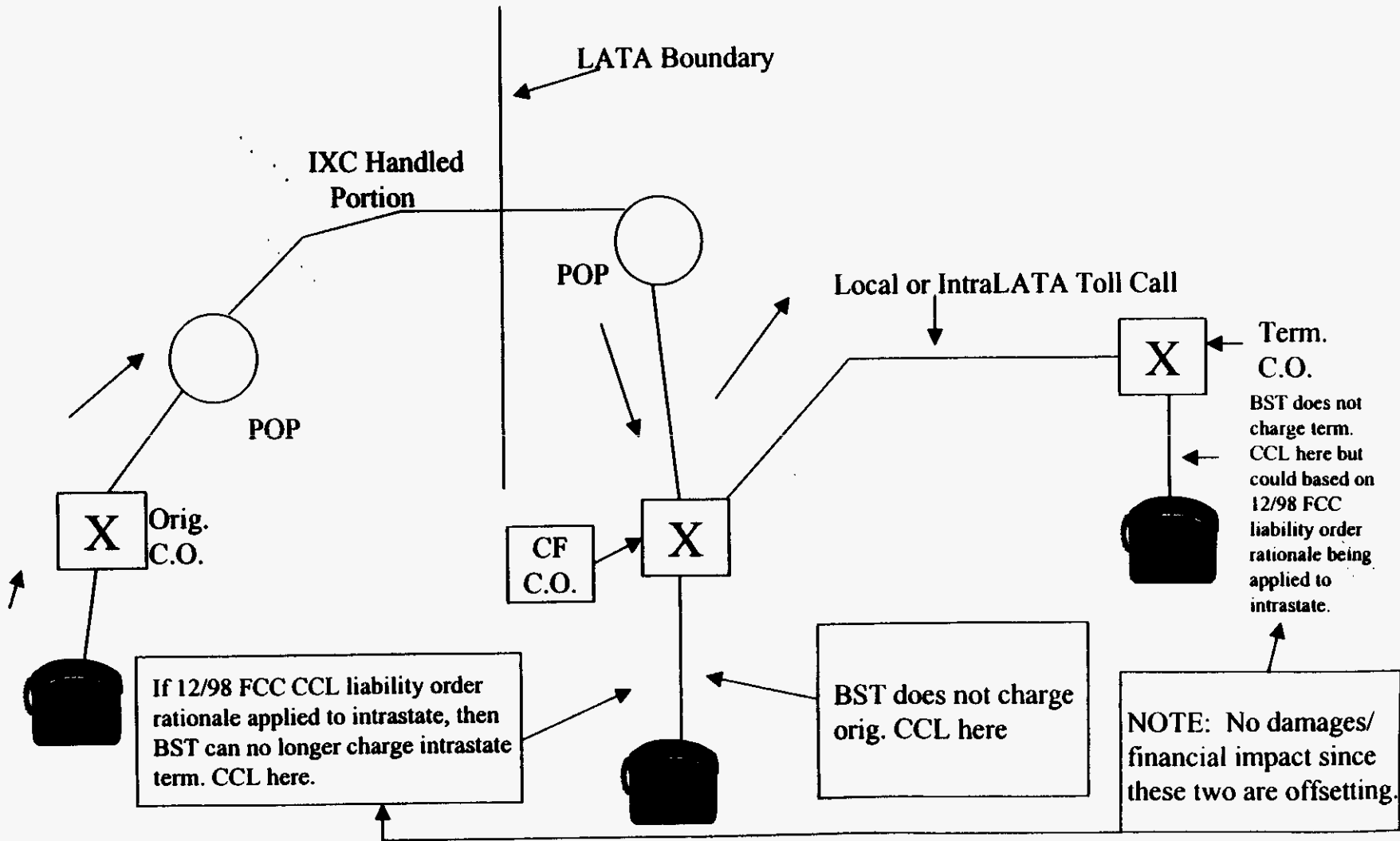


Exhibit CF-A

Florida Dial Equipment Minutes of Use

Year	Sub To	IS	IS DEM	ST DEM	STER	STRA	STLOC	STER	STRA	STLOC	Total Intrastate	
1993	FL	103,102	15,389	0.149260	0.850740	4,842	4,815	78,056	0.046963	0.046701	0.757076	0.850740
1994	FL	108,510	16,999	0.156658	0.843342	4,888	4,871	81,752	0.045047	0.04489	0.753405	0.843342
1995	FL	117,381	18,356	0.156380	0.843620	5,545	3,857	89,623	0.047239	0.032859	0.763522	0.843620
1996	FL	125,538	19,360	0.154216	0.845784	6,671	2,228	97,279	0.053139	0.017748	0.774897	0.845784
1997	FL	147,078	20,923	0.142258	0.857742	8,061	1,950	116,144	0.054808	0.013258	0.789676	0.857742
1998	FL	174,146	22,243	0.127726	0.872274	8,967	2,044	140,892	0.051491	0.011737	0.809045	0.872274
1999	FL	204,779	23,535	0.114931	0.885069	9,552	1,379	170,311	0.046647	0.006738	0.831685	0.885069

**Interstate Plus
Intrastate InterLATA**

1993	0.196223
1994	0.201705
1995	0.203619
1996	0.207356
1997	0.197066
1998	0.179217
1999	0.161577

Florida Quantities for Use in Intrastate CCL Charge Study

	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Average Call Forward Variable plus Remote Call Forward	608,653	552,041	522,863	557,903	652,273	742,713	837,271
Average Access Lines	5,013,559	5,237,358	5,491,558	5,771,380	6,089,846	6,391,243	6,583,959
Call Forwarding (CF) Market Penetration Ratio	0.1214	0.1054	0.0952	0.0967	0.1071	0.1162	0.1272

(1) All call forwarding quantities taken from STAT MASTER file.

(2) Average access lines taken from "Transition to Competition Reports 1996-1999 (Schedule 8 Report)(FRR 0067RPT)

BellSouth

Exhibit CF-C

1993-1999 Carrier Common Line Intrastate Minutes of Use - ATT**1993 CCL MOU**

	Total
AT&T Orig Rate	1,610,171,477
AT&T Term Rate	1,295,083,085

1994 CCL MOU

	Total
AT&T Orig Rate	1,399,165,643
AT&T Term Rate	1,777,609,104

1995 CCL MOU

	Total
AT&T Orig Rate	1,430,551,130
AT&T Term Rate	1,945,443,252

1996 CCL MOU

	Total
AT&T Orig Rate	1,498,587,803
AT&T Term Rate	2,054,594,908

1997 CCL MOU

	Total
AT&T Orig Rate	1,845,105,563
AT&T Term Rate	2,261,872,020

1998 CCL MOU

	Total
AT&T Orig Rate	2,002,216,308
AT&T Term Rate	2,486,302,402

1999 CCL MOU

	Total
AT&T Orig Rate	1,896,333,646
AT&T Term Rate	2,823,511,029

FLORIDA - BELLSOUTH INTRASTATE CCL RATE HISTORY

Effective Dates	Jan-92	May-93	Nov-93	Jan-94	Oct-95	Jan-96	Oct-96	Mar-97	Jan-98	Jan-00
CCL - ORIG	0.02660	0.02660	0.02600	0.02600	0.01061	0.01061	0.01000	0.01000	0.01000	0.01000
CCL - TERM	0.03820	0.03820	0.02927	0.02927	0.02927	0.02927	0.01853	0.01767	0.01767	0.01767

ATT CF CCL CHARGES

Exhibit CF-E

RESULTS - FLORIDA

	1993	1994	1995	1996	1997	1998	1999	
CF RATIO	0.000515754	0.00046029	0.00041969	0.00043413	0.00045696	0.00045088	0.00044498	
CF MOUs ORIGINATING	830,452	644,022	600,389	650,578	843,134	902,756	843,831	
CF MOUs TERMINATING	667,944	818,215	816,484	891,956	1,033,578	1,121,020	1,256,407	
CF CHARGE ORIGINATING	\$21,737	\$16,745	\$13,300	\$6,804	\$8,431	\$9,028	\$8,438	
CF CHARGE TERMINATING	\$23,835	\$23,949	\$23,898	\$23,713	\$18,411	\$19,808	\$22,201	93-99 TOTAL
CF CHARGE TOTAL	\$45,572	\$40,694	\$37,199	\$30,516	\$26,842	\$28,836	\$30,639	240,299

ATT CF CCL CHARGES

Exhibit CF-E

DATA SECTION

CARRIER SPECIFIC MOU CALCULATIONS (From IT)

AT&T

CATEGORY 1			
Total MOUs			168,240,358
CATEGORY 2			
Call Forwarded MOUs			463,331

FACTOR 1 VALUES

1993	1994	1995	1996	1997	1998	1999
0.196223	0.201705	0.203619	0.207356	0.197066	0.179217	0.161577

CF MARKET PENETRATION RATIOS (CFMPR)

1993	1994	1995	1996	1997	1998	1999
0.1214	0.1054	0.0952	0.0967	0.1071	0.1162	0.1272

FACTOR 2 (CFMPR by YEAR/CFMPR 98)

1993	1994	1995	1996	1997	1998	1999
0.9544	0.8286	0.7484	0.7602	0.8420	0.9135	1.0000

CARRIER SPECIFIC MOUs

	1993	1994	1995	1996	1997	1998	1999
ATX Orig - FL	1,610,171,477	1,399,165,643	1,430,551,130	1,498,567,803	1,845,105,563	2,002,216,308	1,896,333,646
ATX Term - FL	1,295,083,085	1,777,609,104	1,945,443,252	2,054,594,908	2,261,872,020	2,486,302,402	2,823,511,029

CCL RATES

	1993	1994	1995	1996	1997	1998	1999
Originating	0.026175	0.026000	0.022153	0.010458	0.010000	0.010000	0.010000
Terminating	0.035684	0.029270	0.029270	0.026585	0.017813	0.017670	0.017670

	DATA - 1/10/99 - 1/16/99			DATA - 5/10/99 - 5/16/99 & 6/7/99 - 6/13/99			COMBINED DATA INTRASTATE		
	INTRASTATE			INTRASTATE			INTRASTATE		
AT&T	Tot. Orig. MOUs	CF Orig. MOUs		Tot. Orig. MOUs	CF Orig. MOUs		Tot. Orig. MOUs	CF Orig. MOUs	
Site Name	(A)	(B)		(C)	(D)		(E)=(A)+(C)	(F)=(B)+(D)	
Jacksonville, FL	31,767,890	135,213		45,936,783	128,813		77,704,673	264,026	
Ft. Lauderdale, FL	23,839,022	69,298		26,206,469	72,058		50,045,491	141,356	
Miami, FL	11,013,003	22,241		29,477,191	35,708		40,490,194	57,949	

TOTAL 168,240,358 463,331

ATT FX CCL CHARGES

Exhibit FX-A

RESULTS - FLORIDA

	1993	1994	1995	1996	1997	1998	1999	
FX RATIO - ORIG	2.99884E-05	2.9988E-05	2.9988E-05	2.9988E-05	2.9988E-05	2.9988E-05	2.9988E-05	
FX RATIO - TERM	2.37492E-05	2.3749E-05	2.3749E-05	2.3749E-05	2.3749E-05	2.3749E-05	2.3749E-05	
FX MOUs ORIGINATING	48,286	41,959	42,900	44,940	55,332	60,043	56,868	
FX MOUs TERMINATING	30,757	42,217	46,203	48,795	53,718	59,048	67,056	
FX CHARGE ORIGINATING	\$1,264	\$1,091	\$950	\$470	\$553	\$600	\$569	
FX CHARGE TERMINATING	\$1,098	\$1,236	\$1,352	\$1,297	\$957	\$1,043	\$1,185	93-99 TOTAL
FX CHARGE TOTAL	\$2,361	\$2,327	\$2,303	\$1,767	\$1,510	\$1,644	\$1,754	13,666

ATT FX CCL CHARGES

Exhibit FX-A

DATA SECTION

CARRIER SPECIFIC MOU CALCULATIONS (From IT)

AT&T		ORIG	TERM
CATEGORY 1			
Total MOUs		158,027,804	235,292,586
CATEGORY 2			
FGD MOUs From/To FX		4,739	5,588

CARRIER SPECIFIC MOUs

	1993	1994	1995	1996	1997	1998	1999
ATX Orig - FL	1,610,171,477	1,399,165,643	1,430,551,130	1,498,587,803	1,845,105,563	2,002,216,308	1,896,333,646
ATX Term - FL	1,295,083,085	1,777,609,104	1,945,443,252	2,054,594,908	2,261,872,020	2,486,302,402	2,823,511,029

CCL RATES

	1993	1994	1995	1996	1997	1998	1999
Originating	0.026175	0.026000	0.022153	0.010458	0.010000	0.010000	0.010000
Terminating	0.035684	0.029270	0.029270	0.026585	0.017813	0.017670	0.017670

Exhibit FX-B

RUN DATE: 12/14/99

FEATURE GROUP A ONX USAGE REPORT
USAGE DATED SEPTEMBER 7 THROUGH OCTOBER 6, 1999

ACCOUNT STATE: JACKSONVILLE, FL

	ORIGINATING FEATURE GROUP A	TERMINATING FEATURE GROUP A	ORIGINATING FEATURE GROUP B	TERMINATING FEATURE GROUP B	ORIGINATING FEATURE GROUP D	TERMINATING FEATURE GROUP D	ORIGINATING 800	TOTAL	
ATX	PIU'D INTER	0	0	0	0	1	1,423	0	1,424
	ACTUAL INTER	0	0	0	0	379	2,961	0	3,340
	TOTAL INTER	0	0	0	0	380	4,384	0	4,764
	PIU'D INTRA	0	0	0	0	1	733	0	734
	ACTUAL INTRA	0	0	0	0	4,718	4,360	0	9,078
	TOTAL INTRA	0	0	0	0	4,719	5,093	0	9,812
	ATX TOTAL	0	0	0	0	5,099	9,477	0	14,576

RUN DATE: 12/16/99

FEATURE GROUP A ONX USAGE REPORT
USAGE DATED SEPTEMBER 7 THROUGH OCTOBER 6, 1999

ACCOUNT STATE: MIAMI, FL

	ORIGINATING FEATURE GROUP A	TERMINATING FEATURE GROUP A	ORIGINATING FEATURE GROUP B	TERMINATING FEATURE GROUP B	ORIGINATING FEATURE GROUP D	TERMINATING FEATURE GROUP D	ORIGINATING 800	TOTAL	
ATX	PIU'D INTER	0	0	0	0	1	67	0	68
	ACTUAL INTER	0	0	0	0	44	195	0	239
	TOTAL INTER	0	0	0	0	45	262	0	307
	PIU'D INTRA	0	0	0	0	1	35	0	36
	ACTUAL INTRA	0	0	0	0	19	460	0	479
	TOTAL INTRA	0	0	0	0	20	495	0	515
	ATX TOTAL	0	0	0	0	65	757	0	822