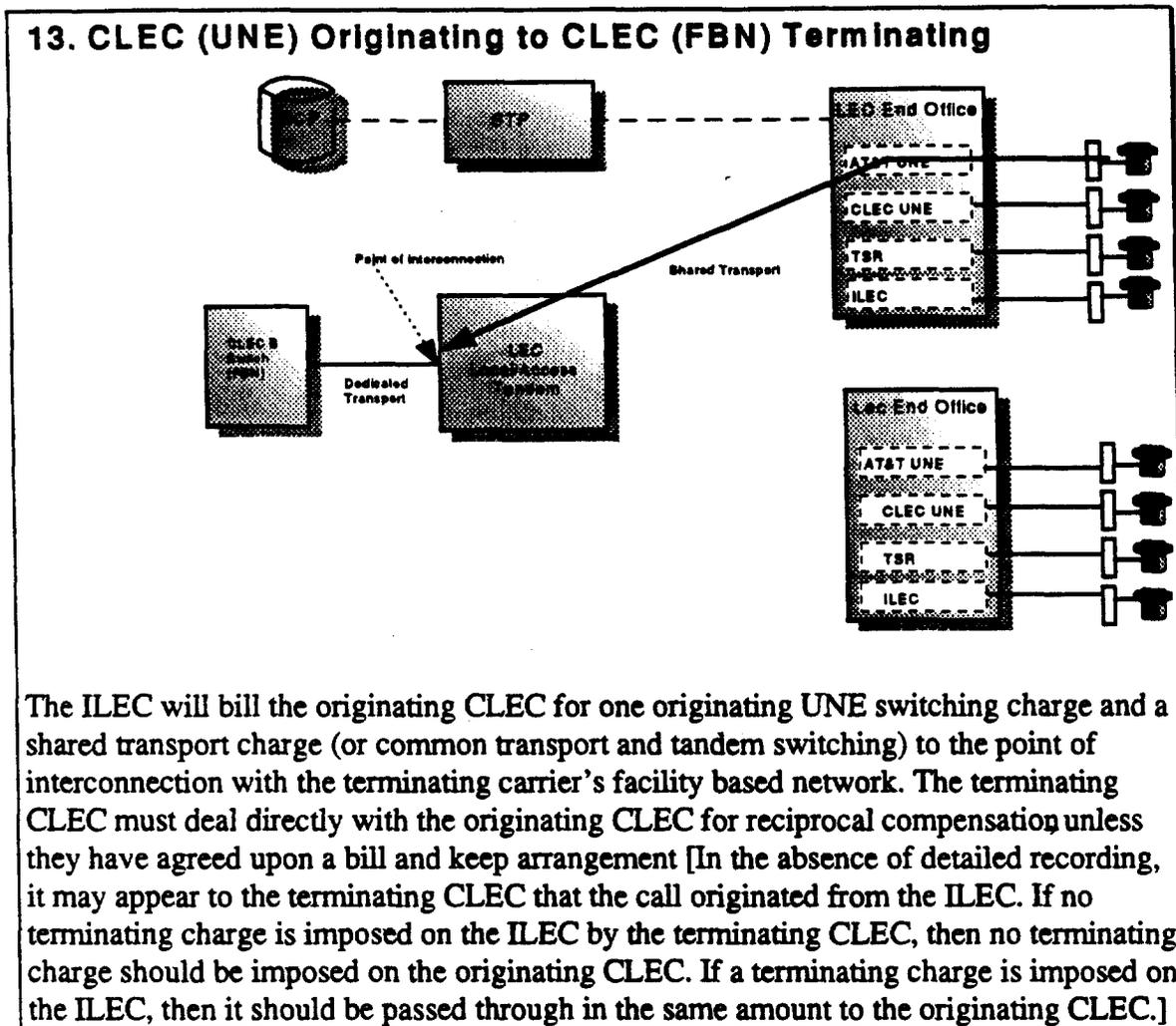
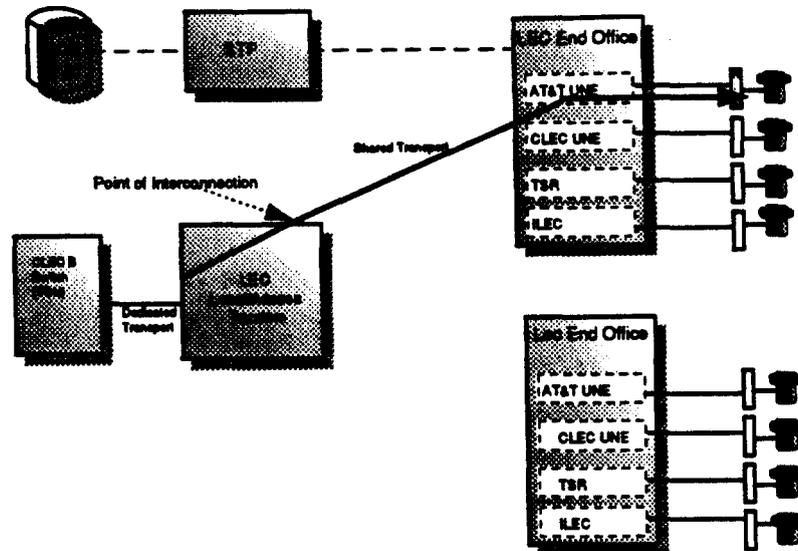


UNBUNDLED NETWORK ELEMENTS / FACILITY BASED NETWORK

When one CLEC provides local exchange service through UNE arrangements and another CLEC provides local exchange service through its facility based network (FBN), the call flows are as follows:



14. CLEC (FBN) Originating to CLEC (UNE) Terminating



The ILEC will bill the terminating CLEC for one UNE terminating switching charge and a transport charge from the point of interconnection with the originating carrier's network. The originating CLEC (B) is paying for the dedicated transport and the tandem switching.

An equally acceptable alternative is for the ILEC to bill the terminating CLEC for one UNE terminating switching charge and to bill the originating CLEC for the dedicated transport (if provided by the ILEC), the tandem switching and for the common transport from the point of interconnection to the end office.

In either case, the terminating CLEC must deal directly with the originating CLEC for reciprocal compensation. [In the absence of detailed recording, it may appear to the terminating CLEC that the call came from the ILEC. In that situation, the terminating CLEC may bill the ILEC for terminating the call and the ILEC may in turn bill the originating CLEC.]

TOLL CALLS - INTRALATA

The following call flows assume that the calls are routed entirely through the ILEC network and that the originating CLEC is also the intraLATA toll provider. If intraLATA calls are to be routed to an IXC point of presence, then the call flows described under section titled TOLL CALLS - INTRASTATE/INTERLATA should be used. The call flows also assume that access charge reform has not been accomplished, and that the state has adopted the FCC's transitional application of the CCL and 75% of the RIC in its state access tariffs.

Even if access reform has happened, the FCC rules on the application of CCL and RIC to UNE switching elements will be applied as described below. If the state has not adopted the FCC's transitional plan, then that state's CCL and full RIC charges apply. For states that do not have a CCL or the equivalent of the RIC, those charges will not apply. In any case, such transitional charges will end upon the earlier of 6/30/97, RBOC in-region entry, or state access charge reform.

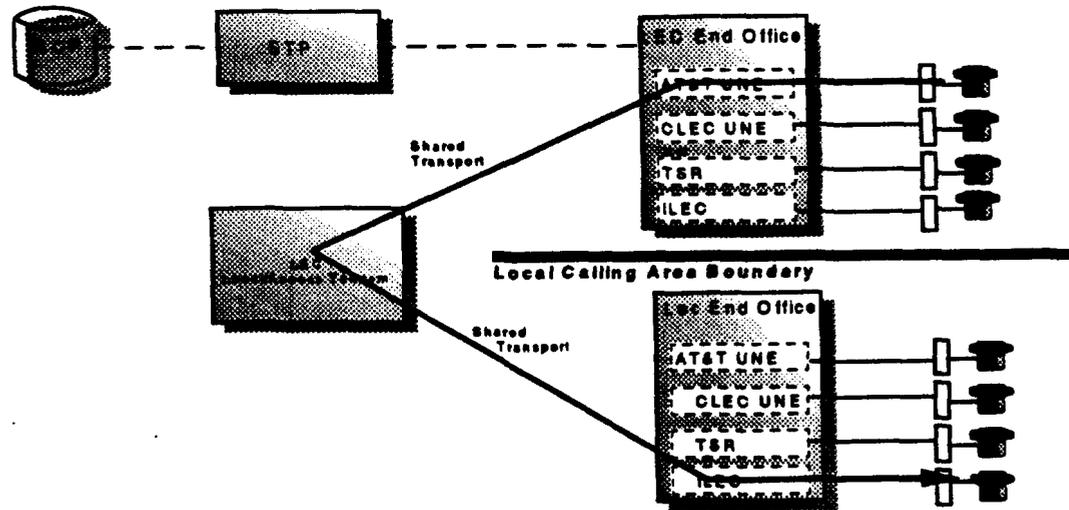
TOTAL SERVICE RESALE:

When a CLEC provides local exchange service through TSR arrangements, the intraLATA call flows between the CLEC and the ILEC or between two CLECs are not different from the intraLATA call flows between two ILEC customers. If the intraLATA toll provider is not the ILEC, the ILEC will charge the intraLATA toll provider for intrastate access charges. CLEC TSRs may resell ILEC intraLATA toll. No access charges would apply.

UNBUNDLED NETWORK ELEMENTS:

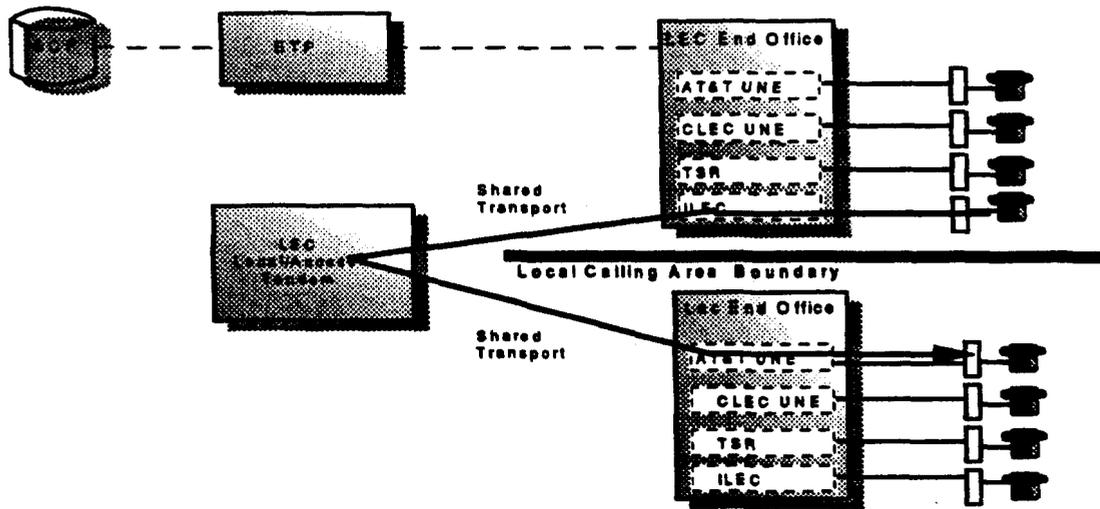
When a CLEC provides local exchange service through UNE arrangements, the intraLATA call flows are as follows. These scenarios assume that the originating CLEC is also the intraLATA toll provider.

15. CLEC Originating to ILEC Terminating



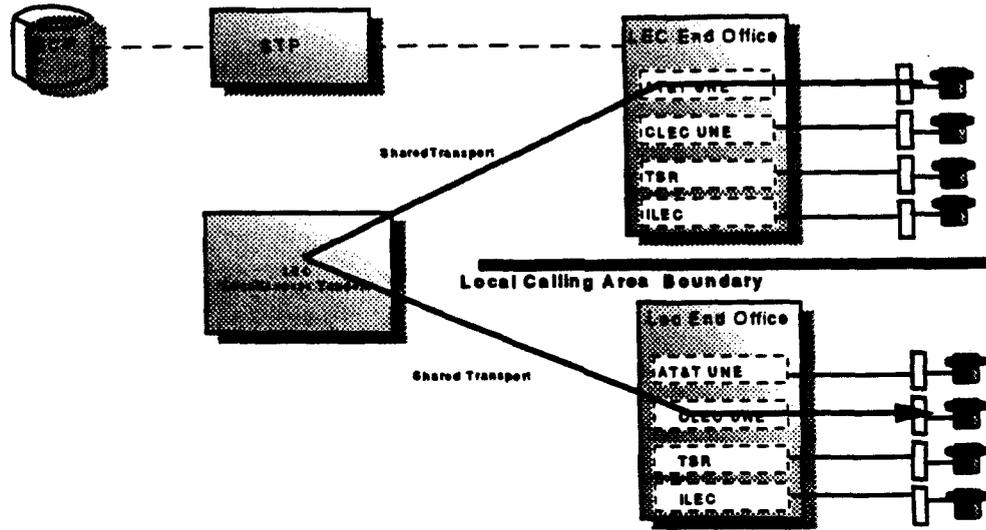
The ILEC will charge the CLEC one UNE originating switching charge and shared transport to the terminating end office, plus intrastate access charges for the discounted RIC and the CCL at the originating end, if applicable. AT&T prefers a blended transport and tandem rate that reflects the percent of intraLATA toll calls that use tandem switching. The CLEC as an intrastate toll provider will pay intrastate access charges for the CCL, undiscounted RIC and Local Switching charge at the terminating end.

16. ILEC Originating to CLEC Terminating



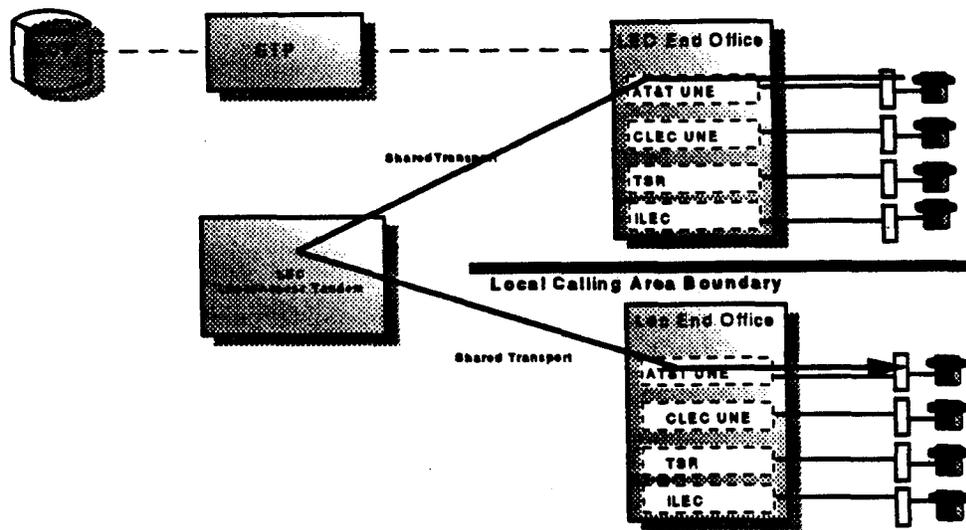
The ILEC will charge the CLEC for one UNE terminating switching charge, CCL and discounted RIC, if applicable. In return, the CLEC may impose terminating intrastate access charges through tariffed access rates on the ILEC for the CCL, RIC and Local Switching.

17. CLEC A Originating to CLEC B Terminating



The ILEC will charge the originating CLEC (AT&T) for one UNE switching charge, shared transport to the terminating end office, CCL and discounted RIC, if applicable. The ILEC will charge the terminating CLEC (B) the CCL and discounted RIC, and terminating UNE switching. AT&T prefers a blended transport and tandem rate. The terminating CLEC (B) must deal directly with the originating CLEC (AT&T) for recovery of the access charges.

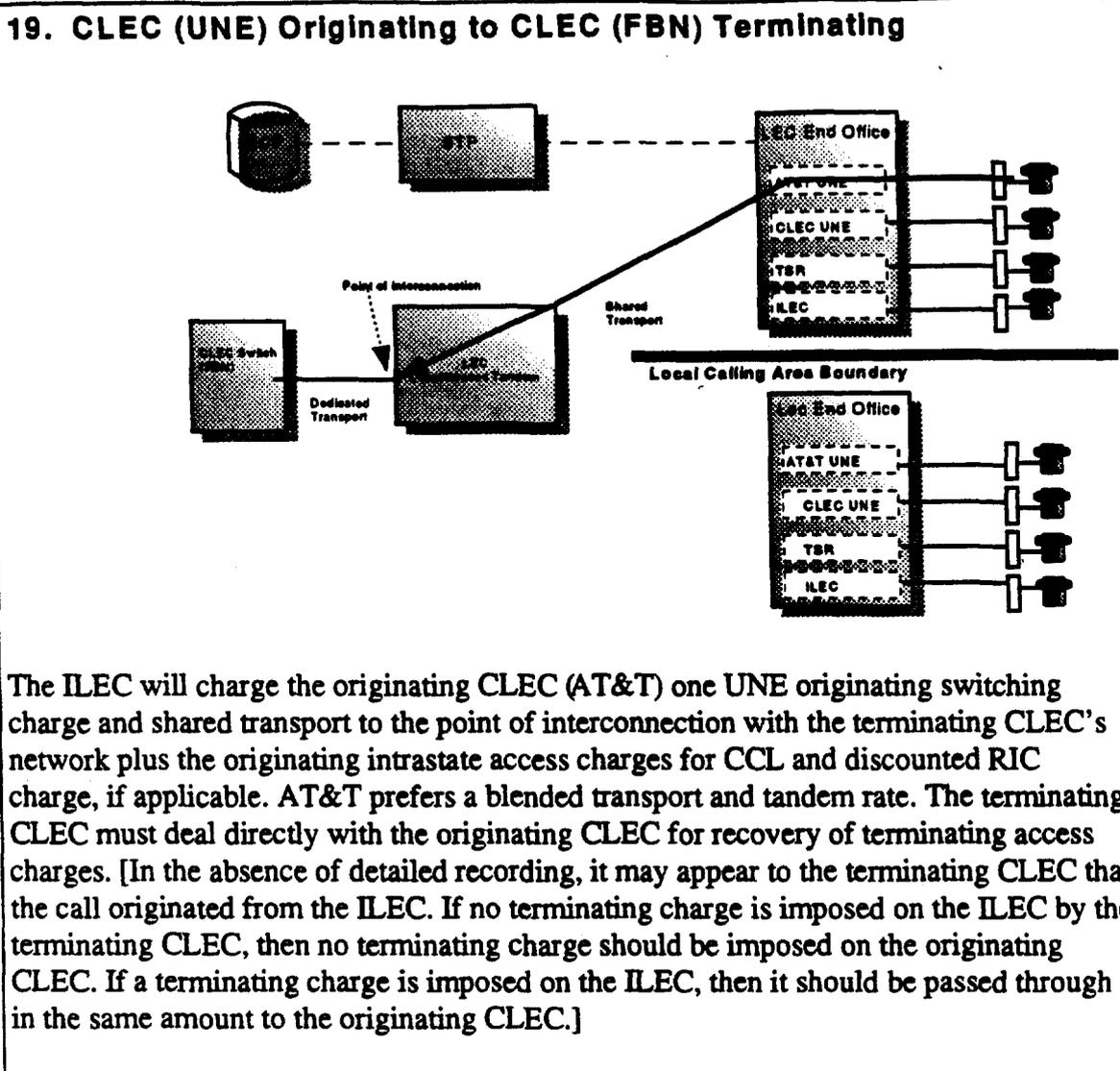
18. CLEC A Originating to CLEC A Terminating



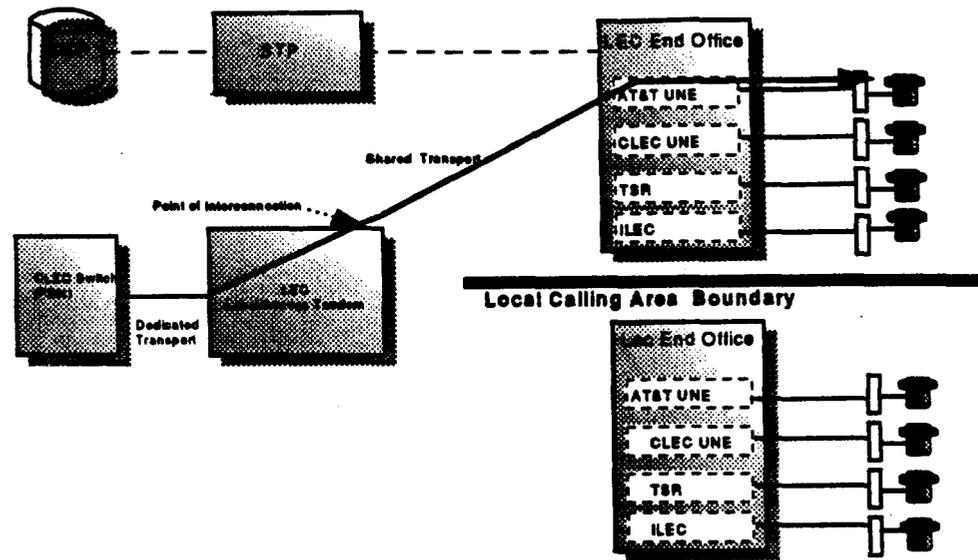
The ILEC will charge CLEC A two UNE switching charges, one for the originating end and one for the terminating end and shared transport between the end offices, the CCL and the discounted RIC at each end, if applicable. AT&T prefers a blended transport and tandem rate.

UNBUNDLED NETWORK ELEMENTS / FACILITY BASED NETWORKS

When one CLEC provides local exchange service through UNE arrangements and another CLEC provides local exchange service through its facility based network, the call flows for intraLATA toll calls are as follows.



20. CLEC (FBN) Originating to CLEC (UNE) Terminating



The ILEC will charge the terminating CLEC (UNE) one UNE terminating switching charge and a transport charge from the point of interconnection with the originating CLEC's network plus the terminating intrastate access charge for CCL and discounted RIC, if applicable. The originating CLEC (FBN) is paying for the dedicated transport and the tandem switching.

An equally acceptable alternative is for the ILEC to bill the terminating CLEC for one UNE terminating switching charge (plus the applicable intrastate access charges) and to bill the originating CLEC for the dedicated transport (if provided by the ILEC), the tandem switching and for the common transport from the point of interconnection to the end office.

In either case, the terminating CLEC must deal directly with the originating CLEC for the recovery of access charges. [In the absence of detailed recording, it may appear to the terminating CLEC that the call came from the ILEC. In that situation, the terminating CLEC may bill the ILEC for terminating the call and the ILEC may in turn bill the originating CLEC.]

TOLL CALLS - INTRASTATE / INTERLATA

The following call flows assume that all calls are routed to an IXC point of presence. The IXC may be the CLEC's own IXC or another, non-affiliated IXC, and that the IXC is purchasing all the necessary transport from the ILEC. The call flows also assume that access charge reform has not been accomplished, that the state has adopted the FCC's transitional application of the CCL and 75% of the RIC to UNE customers, and that the ILEC has a CCL and the equivalent of the RIC in its state access tariffs.

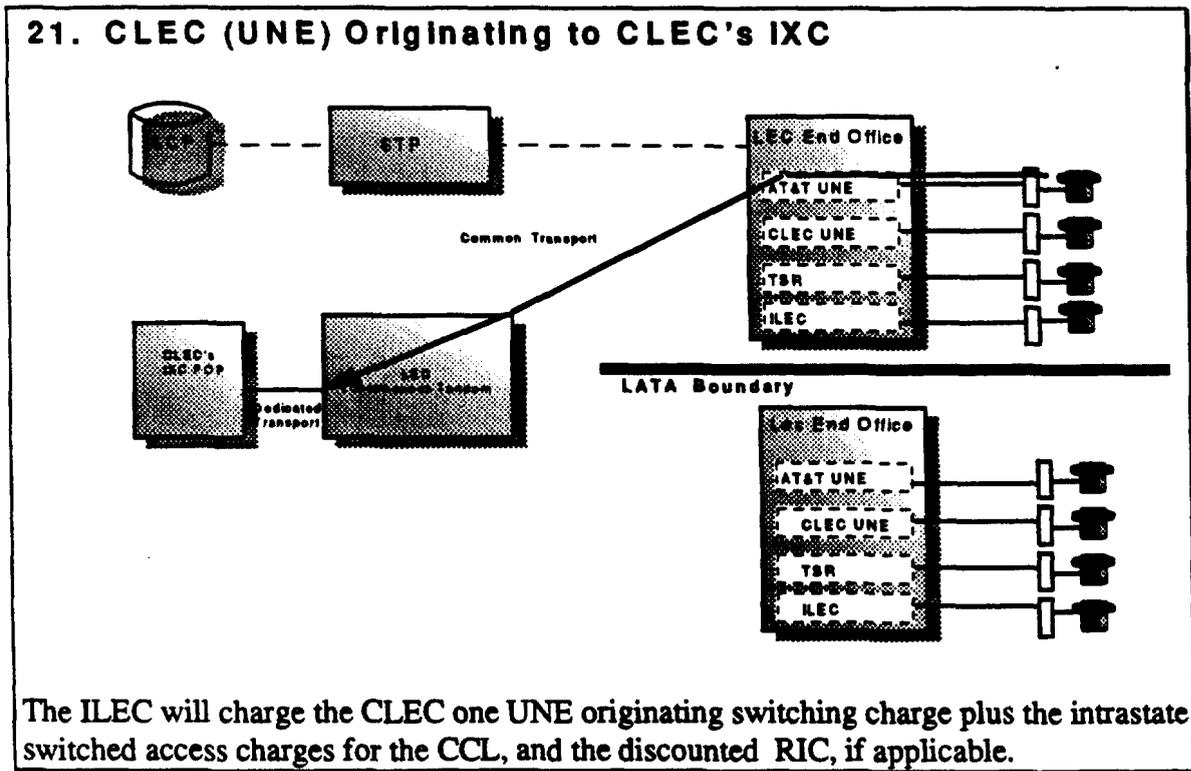
Even if access reform has happened, the FCC rules on the application of CCL and RIC to UNE switching elements will be applied as described below. If the state has not adopted the FCC's transitional plan, then that state's access charges apply. For states that do not have a CCL or the equivalent of the RIC, those charges will not apply.

TOTAL SERVICE RESALE

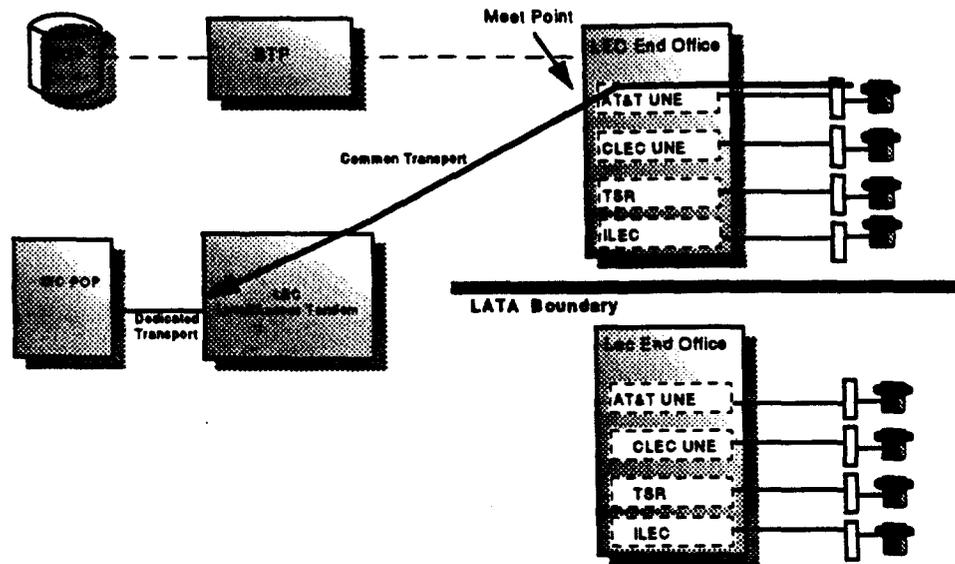
When a CLEC provides local exchange service through TSR arrangements, the ILEC will provide and bill intrastate access charges to the IXC for intrastate/interLATA toll calls.

UNBUNDLED NETWORK ELEMENTS

When a CLEC provides local exchange service through UNE arrangements, the call flows for intrastate/interLATA toll calls are as follows:

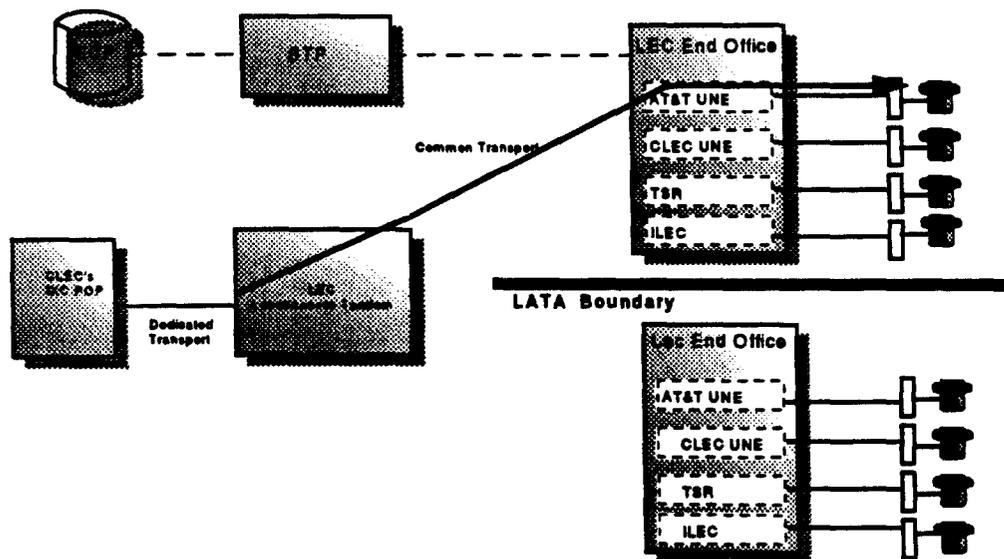


22. CLEC (UNE) Originating to a Non-Affiliated IXC

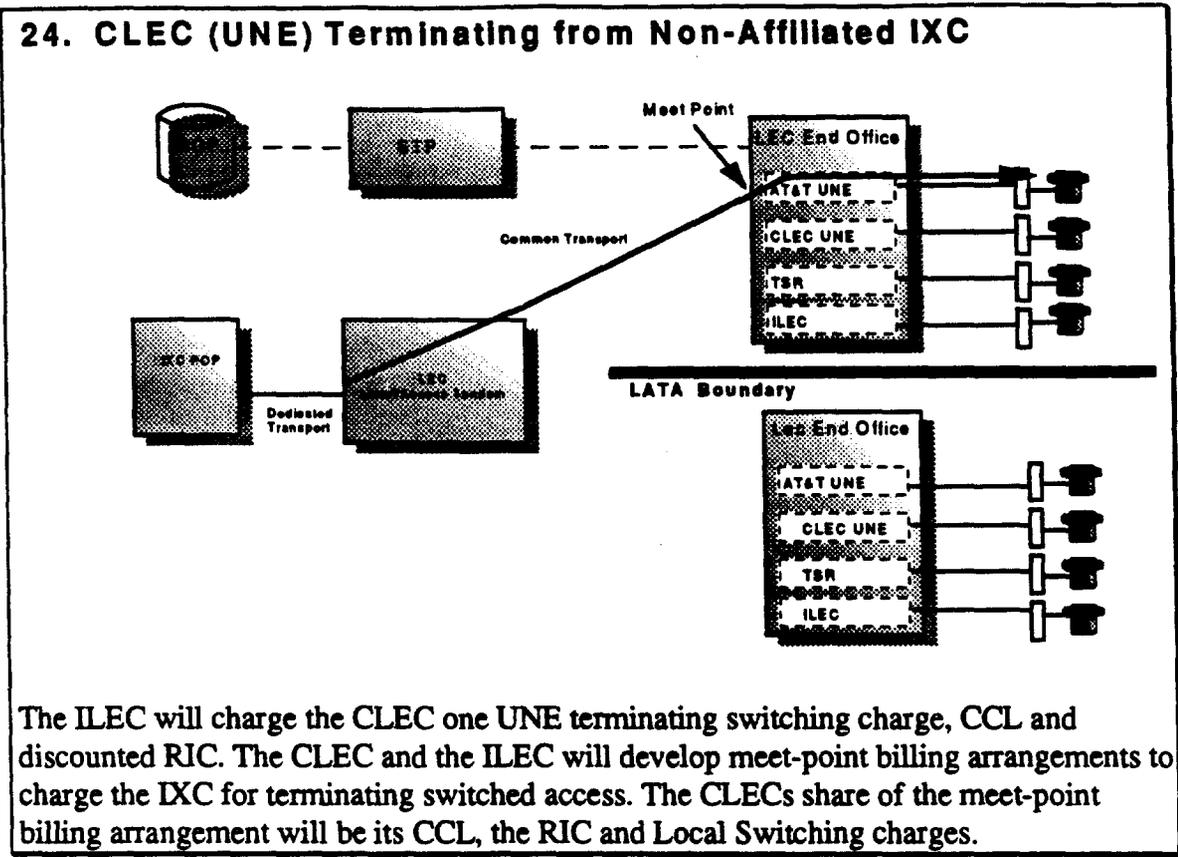


The ILEC will charge the CLEC one UNE switching charge, CCL and discounted RIC. The CLEC and the ILEC will develop meet-point billing arrangements to charge the IXC for originating switched access. The CLECs share of the meet-point billing arrangement will be its CCL, the RIC and Local Switching charges.

23. CLEC (UNE) Terminating from CLEC's IXC



The ILEC will charge the CLEC one UNE terminating switching plus the intrastate switched access charges for the CCL, and discounted RIC, if applicable.



FACILITY BASED NETWORKS

When a CLEC provides local exchange service through its facility based network, the CLEC may independently offer and bill exchange access services to its own or other IXCs, either alone or in a meet-point billing situation with the ILEC or with other CLECs.

TOLL CALLS - INTERSTATE

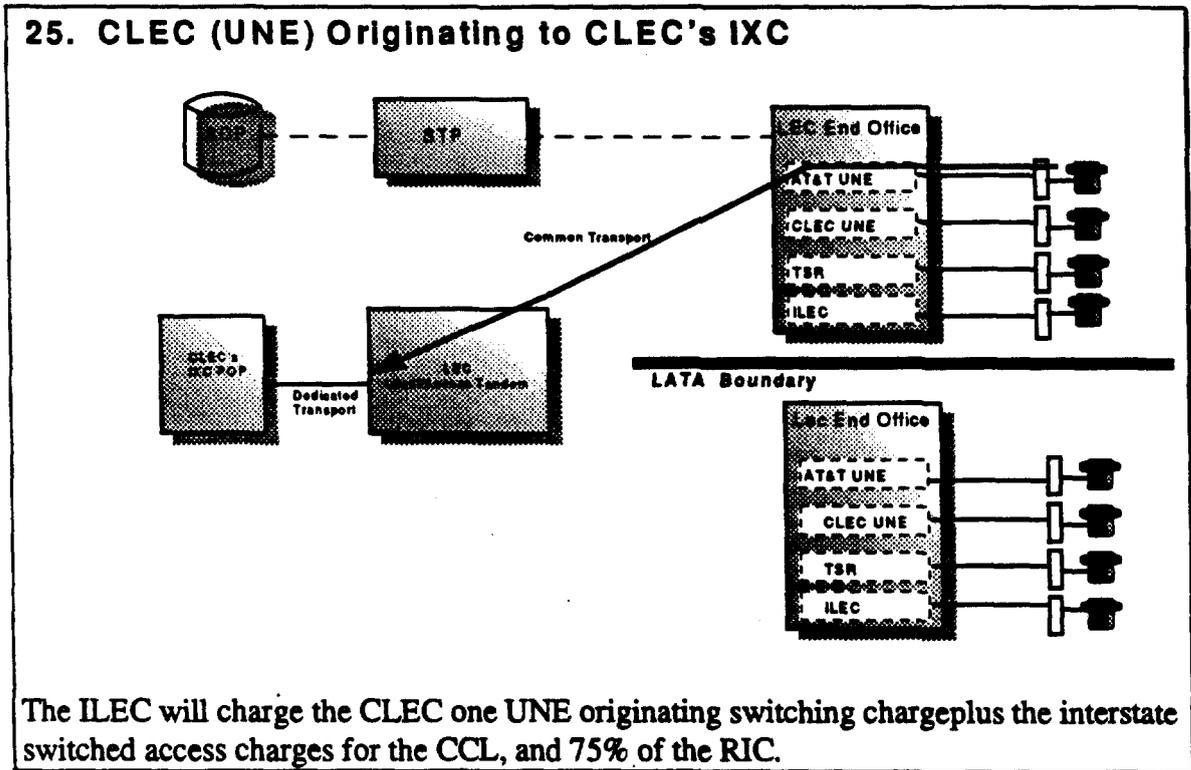
The following call flows assume that all calls are routed to an IXC point of presence. The IXC may be the CLEC's own IXC or another, non-affiliated IXC, and that the IXC will purchase all the necessary transport from the ILEC. The call flows also assume that access charge reform has not been accomplished and the FCC's transitional application of the CCL and 75% of the RIC to UNE customers is in effect.

TOTAL SERVICE RESALE

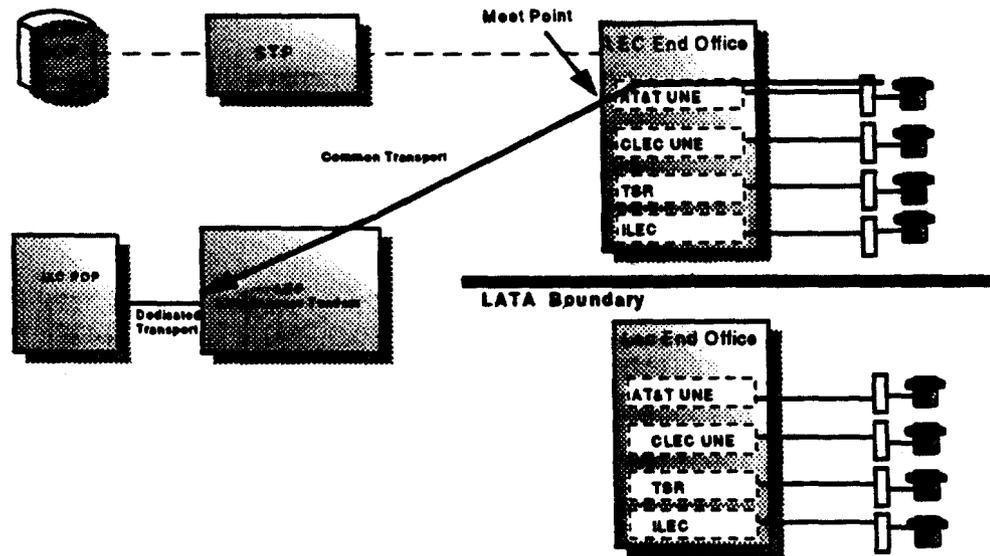
When a CLEC provides local exchange service through TSR arrangements, the ILEC will provide and bill interstate access charges to the IXC for interstate toll charges.

UNBUNDLED NETWORK ELEMENTS

When a CLEC provides local exchange service through UNE arrangements, the call flows for interstate toll calls are as follows:

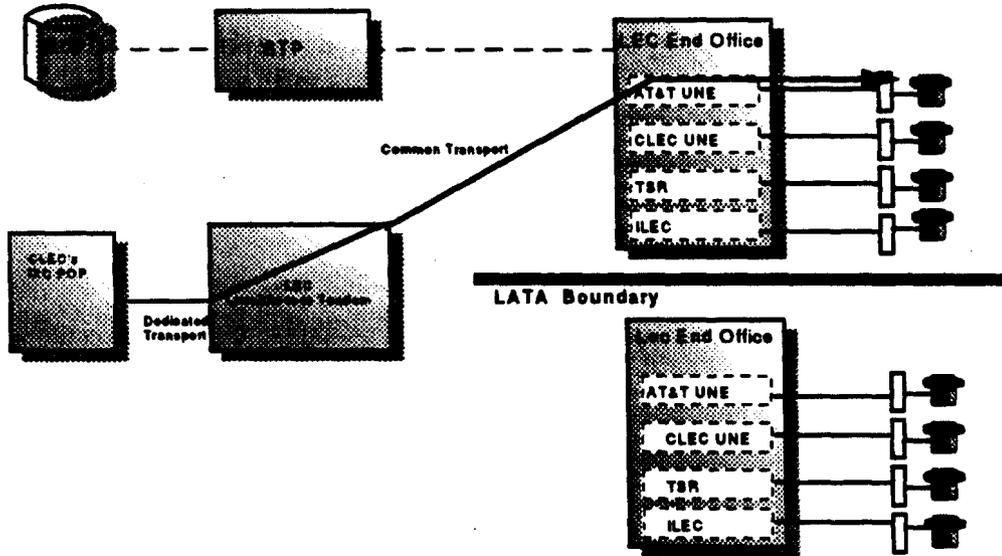


26. CLEC (UNE) Originating to a Non-Affiliated IXC



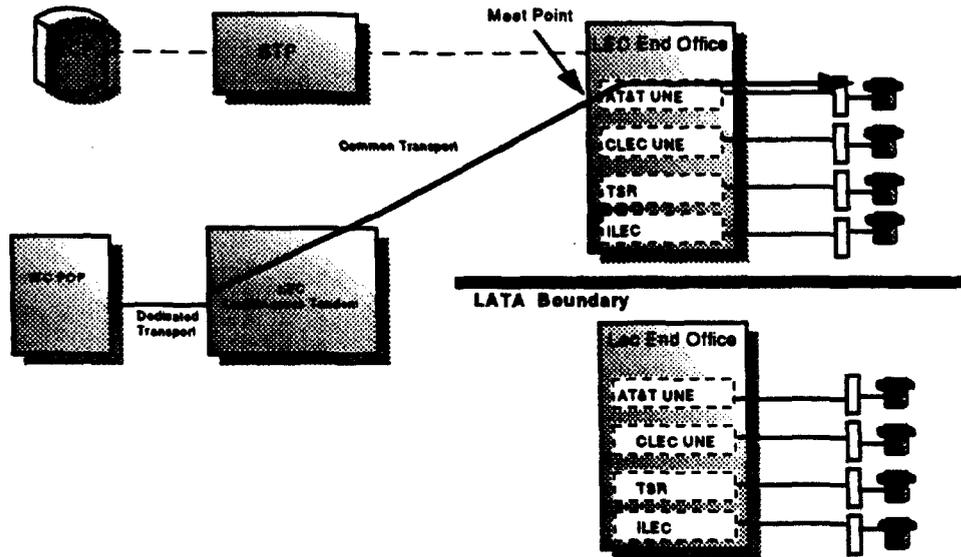
The ILEC will charge the CLEC one UNE switching charge, CCL, and 75% of the RIC. The CLEC and the ILEC will develop meet-point billing arrangements to charge the IXC for originating switched access. The CLECs share of the meet-point billing arrangement will be its CCL, the RIC and Local Switching charges.

27. CLEC (UNE) Terminating from CLEC's IXC



The ILEC will charge the CLEC one UNE terminating switching charge plus the interstate switched access charges for the CCL, and 75% of the RIC.

28. CLEC (UNE) Terminating from Non-Affiliated IXC



The ILEC will charge the CLEC one UNE terminating switching charge, CCL, and 75% of the RIC. The CLEC and the ILEC will develop meet-point billing arrangements to charge the IXC for terminating switched access. The CLECs share of the meet-point billing arrangement will be its CCL, the RIC and Local Switching charges.

FACILITY BASED NETWORKS

When a CLEC provides local exchange service through its facility based network, the CLEC may independently offer and bill exchange access services to its own or other IXCs, either alone or in a meet-point billing situation with the ILEC or with other CLECs.

**ACCESS BILLING RECEIVABLES
AND
RECORDING**

**INTERFACE SPECIFICATIONS
FOR
UNBUNDLED ELEMENTS (UNE)**

Section Summary

This document outlines the procedures for receiving access information required to be able to bill IXCs and IntraLATA Toll Providers for the access services used by them in connecting with AT&T Local Service Customers which were served using ILEC Unbundled Network Elements (UNE).

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I. Summary of Data Attributes

The EMR recording standards are defined through an industry process. The following requirements are in support of these standards and are not intended to change them.

AT&T requires that a carrier identification code (CIC) be provided on each EMR record transmitted to AT&T. In the absence of a CIC, AT&T will bill the ILEC and the ILEC will be responsible for payment to AT&T and for obtaining reimbursement for the respective charges from the appropriate carrier.

To the extent technically feasible, the ILEC will record all call detail information associated with every call originated from or terminated to AT&T's leased Unbundled Network Elements.

NOTE: AT&T requires only records associated with UNE customers.

The ILEC shall record call detail information sufficient for all to render interstate and intrastate access bills to IXCs, even if such certain records or call detail information has not been recorded in the past. These records shall be provided to AT&T and shall be formatted pursuant to Bellcore standards.

II. Summary of EMR Exchange Requirements

Data Transmission

The records shall be transmitted to AT&T daily in EMR format via Connect:Direct, provided however that if AT&T and the ILEC do not have Connect:Direct capabilities, such records shall be transmitted as the parties agree.

The ILEC shall retain, at its sole expense, copies of all EMR records transmitted to AT&T for at least fourteen (14) calendar days after transmission.

In general, access records can be categorized into five (5) types: Originating to IXC, Originating Local 800, Originating InterLATA 800, Terminating and Originating IntraLATA.

- **Originating to IXC** - This type of access record is created when a Long Distance call originates on Unbundled Network Elements AT&T obtains from the ILEC to an IXC.
- **Originating Local 800** - This type of access record is created when an 800 call originates on Unbundled Network Elements AT&T obtains from the ILEC to an ILEC providing the 800 service.
- **Originating InterLATA 800** - This type of access record is created when an 800 call originates on Unbundled Network Elements AT&T obtains from the ILEC to an IXC providing the 800 service.
- **Terminating** - This type of access record is created when a Long Distance call originates from an IXC and terminates through Unbundled Network Elements AT&T obtains from the ILEC.
- **Originating IntraLATA** - This type of access record is created when a call originates on Unbundled Network Elements AT&T obtains from the ILEC and terminates outside the Local Call Area but within the LATA.

In all of the above circumstances, AT&T will bill using the recording data provided by the ILEC to bill access charges to the IXCs.

NOTE: If identification of IntraLATA and Local traffic cannot be separated, negotiation will be required on an individual case basis.

Each of these five (5) record types should be preceded by a header record and followed by a trailer record.

III. Definition of Data Requirements

Record Layouts

A. EMR Records Required

The following lists the EMR records which the ILEC shall provide to AT&T. This list is not all inclusive.

TRAFFIC TYPES	RECORD ID	METHOD OF RECORDING	TYPE OF SERVICE
International DDD	110201	01	
International OPH	110201	11	
Domestic DDD	110101	01	
Domestic OPH	110101	11	
Outwats	110102		
Outwats	110103		
Inwats (term 800s)	110104		
900s	110116		
Originating 800	110125		
Directory Assistance	110132		
Cellular			
• Type I	110101		02
• Type II	110101		03
500	110101 with a 'To NPA' of 500		
700	110101 with a 'To NPA' of 700		
Coin	110101 with 'Message Type' of 6		
Terminating Wireless	110145		
Terminating FG"D"	110120		
Terminating FG"B"	110101		

B. Header/Trailer Record Requirements

The following header and trailer will be used in data transmission between NRM and the ILEC for access billing records:

TYPE OF RECORD	RECORD ID
Header	20-21-09
Trailer	20-21-10

The following table reflects the fields that are associated with the header and trailer records:

POSITION	FIELD NAME	CHARACTERS
01 - 06	Record ID	6
07 - 12	Date Created	6
13 - 14	Invoice Number	2
15 - 21*	Grand Total Record Count	7
22 - 25	Time Created	4
26 - n*	Unused	varies

* Used on trailer record only

**n = Length of whatever the 11XXXXX detail record turns out to be

C. Minimum EMR Data Fields Required

At a minimum, the ILEC shall provide data in compliance with the following fields and associated requirements. The requirements follow the BELLCORE EMR Standards.

POSITION	FIELD NAME	CHARACTERS	VALUES/EXAMPLES	DESCRIPTION
1 - 6	Record ID	6	119999	Identifies traffic type
7 - 12	Date of Record	6	YYMMDD	Date record created
15 - 24	From Number	10	9999999999	Originating number
30 - 39	To Number	10	9999999999	Terminating number
40	Orig/Term ID	1	0,1 = Orig. from AT&T 2 = Term. To AT&T	Denotes if call is originating or terminating
41 - 44	Trunk Group No.	4	9999	Identifies trunk group call was routed over
46 - 49	Carrier ID	4	9999	Identifies CIC Code of the carrier
51	Routing Method	1	1 = Direct Routed 2 = Tandem Routed	Identifies routing of call
55 - 60	Connect Time	6	HHMMSS	Start time of call
61 - 67	Billable Time	7	MMMMSS.S	Duration of call
68 - 69	Method of Recording	2	01-04 = Not Operator > 05 = Operator	Denotes if call was operator handled or not
78 - 79	Type Access Service	2	01 - 17	Indicates if a particular function or service was performed such as Operator Transfer Service.
99	Indicator 18	1	1 = Multi rate period 2 = Attempt record 3 = multi rate period attempt record	Indicates if call was not completed. Also, indicates if call crossed rate periods.
100	Indicator 19	1	1 = IntraLATA 2 = InterLATA 3 = InterLATA LEC 4 = InterLATA LEC/IXC 5 = IntraLATA IXC 6 = IntraLATA LEC/IXC 7 = IntraLATA IXC/LEC 8 = InterLATA IXC/LEC 9 = LATA not determined	Identifies LATA
146	Feature Group	1	A, B, C, D	Identifies Feature Group
149	Settlement Code	1	J = Interstate 8 = Intrastate	Identifies jurisdiction of call

D. Performance Measurements

The ILEC must meet the following performance measurements for the provision of EMR records:

MEASUREMENT	REQUIREMENT
Timeliness	<p>1. Of the total number of records transmitted each day, 98% of all such records should be received within five (5) calendar days of their recording.</p> <p>2. Of the total number of records recorded each day, 99% of all such records should be received within ten (10) calendar days of their recording.</p>
Accuracy	There should be no more than 60 errors per one (1) million records transmitted.
Completeness	There should be no more than 20 omissions per one (1) million records.

E. Production Support

Prior to initial record transmission to AT&T, the ILEC will identify a Single Point of Contact for transmission related issues or concerns that may arise.

F. Testing Requirements

Testing is to be done on all ILEC switches. This testing shall consist of:

- EMR records received reflecting traffic originated from AT&T UNEs.
- EMR records received reflecting traffic originating from IXC's to AT&T UNEs.
- Validation of EMR records consistent with EMR requirements.
- Verification of Header and Trailer records.

NOTE: Access record testing will need to be reviewed as deployment progresses. The possibility exists that once an ILEC's billing system has been verified as handling records from a previous switch within its jurisdiction, verification of other switches may not be required.

IV. AT&T Access Receivables - Billing Standards/Requirements**Purpose**

The AT&T Access Receivables Billing Standards/Requirements document is to define the standard business and billing practices that AT&T and ILEC agree to use when AT&T renders bills pursuant to this Agreement.

Guidelines

AT&T will follow the existing Carrier Access Billing System (CABS) format as detailed in the Standard AT&T Billing Requirements (SABR) document. The medium options for access billing are Bill Data Tape, diskette, or paper. The preference is Bill Data Tape and the requirements will have to be provided to AT&T.

The Ordering and Billing Forum (OBF) standards will be followed for the Type of Accounts, Feature Groups and Billable Elements for both local and traditional access charges.

Billing will be based on the tariffed rates and rate elements, as filed with the State Commission, FCC, NECA and/or other Exchange Associations. The application of factors, payment arrangements and credit allowances will also be based on the appropriate filings.

All charges to existing billing will be described in the appropriate billing section; e.g., OC&C and Detail of Adjustments. This will allow all identified financial charges to be understood, assured and thus acceptable to both parties.

The Carrier providing service to the customer will be billed access charges that were incurred. This includes incidental and overflow usage, whether ordered or not.

Continued on next page

Business Requirements

Purpose

The following AT&T business principles apply to both local and traditional access charges. The information required to support these business rules must be provided by the ILEC, CLEC and IXC on the Billing Standard/Requirements Request Form.

Rules

Standard	Business Rule				
ASR	Billing detail data will reflect what was ordered and provisioned for the appropriate ILECs, CLECs and IXCs in the provisioning process via the Access Service Request (ASR) or other negotiated ordering process.				
Company Code	The originating company code must be provided to AT&T prior to the initial billing of services. Billing for Switched and Facility services will be by Company Code, by State.				
Invoice Number	The invoice number will be a maximum of 15 alpha-numeric characters with the last 5 characters containing the Julian calendar date.				
Payment	<p>Payment is to be made 31 days after the bill date or by the next bill date, whichever is shorter. If the customer does not have 20 days from receipt of the bill, then a request may be made to extend the payment due date. The preferred payment method is Electronic Funds Transfer (EFT). Payments are to be made as follows:</p> <table border="1" data-bbox="737 1123 1451 1357"> <thead> <tr> <th data-bbox="737 1123 1042 1153">EFT:</th> <th data-bbox="1042 1123 1451 1153">Check Payments:</th> </tr> </thead> <tbody> <tr> <td data-bbox="737 1153 1042 1357">Chase Manhattan Bank New York, NY Account #9102548055 ABA #021000021</td> <td data-bbox="1042 1153 1451 1357">AT&T P.O. Box 92294 Chicago, IL 60675-2294</td> </tr> </tbody> </table>	EFT:	Check Payments:	Chase Manhattan Bank New York, NY Account #9102548055 ABA #021000021	AT&T P.O. Box 92294 Chicago, IL 60675-2294
EFT:	Check Payments:				
Chase Manhattan Bank New York, NY Account #9102548055 ABA #021000021	AT&T P.O. Box 92294 Chicago, IL 60675-2294				

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