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August 16, 1996

Mrs. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Docket No. 960847-TP

Dear Mrs. Bayo:

Enclosed for filing in the above referenced docket  
are an original and fifteen (15) copies of AT&T's Petition  
for Arbitration Under the Telecommunications Act of 1996.

Copies of the foregoing are being served on all parties  
of record in accordance with the attached Certificate of  
Service.

Yours truly,

  
Tracy Hatch

Attachments

cc: J. P. Spooner, Jr.  
Parties of Record

ACK ☒  
AFM \_\_\_\_\_  
ASP \_\_\_\_\_  
CIE \_\_\_\_\_  
CMT ☒  
CIS \_\_\_\_\_  
EAC \_\_\_\_\_  
LIS ☒  
LH ☒  
CIC ☒  
SIC \_\_\_\_\_  
JLC ☒  
VLS \_\_\_\_\_  
CIC \_\_\_\_\_



DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

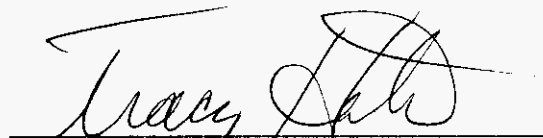
**CERTIFICATE OF SERVICE**

**DOCKET NOS. 960847-TP**

I HEREBY CERTIFY that a true copy of the foregoing has been furnished by U. S. Mail or hand-delivery to the following parties of record this 16<sup>th</sup> day of August, 1996:

Beverly Menard, Director  
c/o Ken Waters  
GTE Florida Incorporated  
106 E. College Ave., Suite 1440  
Tallahassee, FL 32301-7704

Donna Canzano, Esq.  
Division of Legal Services  
Florida Public Service Comm.  
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Tallahassee, FL 32399

  
Tracy Hatch

**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

ORIGINAL  
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**In re: Petition by AT&T )  
COMMUNICATIONS OF THE )  
SOUTHERN STATES, INC. )  
for Arbitration of Certain Terms )  
and Conditions of a Proposed )  
Agreement with GTE FLORIDA )  
INCORPORATED concerning )  
Interconnection and Resale under the )  
Telecommunications Act of 1996 )**

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**DOCKET NO. 960847-TP**

**FILED: August 16, 1996**

**AT&T'S PETITION FOR ARBITRATION  
UNDER THE TELECOMMUNICATIONS ACT OF 1996**

AT&T Communications of the Southern States, Inc. ("AT&T") requests the Florida Public Service Commission (the "Commission") to arbitrate certain terms and conditions of a proposed agreement between AT&T and GTE Florida Incorporated.<sup>1</sup> Without intervention of the Commission now, AT&T, and potentially others, will be unable to compete with GTE to offer local telephone services to Florida consumers in the areas served by GTE. Section 101 of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996) (the "Act") amends Title 47 of the United States Code to include new Sections 251 and 252 which obligate GTE to negotiate with AT&T in good faith and, if necessary, then allows either party to submit any unresolved issues to arbitration before this Commission.

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<sup>1</sup> Throughout this Petition, any reference to "GTE" will mean GTE Florida Incorporated or GTE Corporation, the parent of GTE Florida Incorporated, as the circumstances warrant. "GTE Corp." will be referenced only when it is necessary to distinguish GTE Corp. from GTE Florida Incorporated.

DOCUMENT NUMBER-DATE

08670 AUG 16 96

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## PARTIES

Petitioner, AT&T, is a regulated telecommunications carrier, duly authorized by the Commission to provide service as an interexchange carrier ("IXC"), as an alternative access vendor ("AAV"), and as an alternative local exchange company ("ALEC") in Florida. AT&T's full name and address are as follows:

AT&T Communications of  
the Southern States, Inc.  
1200 Peachtree St., NE  
Atlanta, Georgia 30309

The names and addresses of AT&T's representatives, to whom all pleadings, notices, orders, or other correspondence with respect to this docket should be addressed are as follows:

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GTE is a regulated telecommunications carrier, certified by the Commission to provide local exchange and other services within its franchised areas in Florida. GTE is an "Incumbent Local Exchange Carrier" under the terms of the Act.<sup>2</sup>

### **JURISDICTION**

This Commission has jurisdiction over AT&T's Petition pursuant to the provisions of the Act. As a telecommunications carrier, AT&T formally requested negotiations with GTE on March 11, 1996, and as permitted by the Act, files this Petition for resolution of unresolved issues between the 135th and 160th days following such request.<sup>3</sup>

### **STATEMENT OF THE CASE**

Earlier this year, Congress acted to bring consumers competitive choices for local telephone service, the last bastion of telecommunications subject to monopoly control.<sup>4</sup> Congress recognized that the time had come for competition to do for the local telephone market what it so successfully had achieved in the long distance market<sup>5</sup> -- choice among providers, new and different service offerings and competitive, rather than monopoly, prices. The Federal Communications Commission ("FCC") has emphatically embraced Congress' vision in its

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<sup>2</sup> 47 U.S.C. § 251(h).

<sup>3</sup> 47 U.S.C. 252(b)(1).

<sup>4</sup> Congress passed the Act to "provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition . . . ." Conference Report, H.R. Rep. No. 458, 104th Cong., 2d Sess., at 113 (1996) (Joint Explanatory Statement of the Committee of Conference).

<sup>5</sup> As discussed in AT&T's Petition for Arbitration regarding BellSouth, Docket No. 960833-TP, the opening of the long distance market to competition provides ample evidence of the benefits consumers will derive from opening the local telephone market to competition.

recently promulgated rules implementing 47 U.S.C. §§ 251, 252.<sup>6</sup> Thus, the issue is not whether the local services market must be opened to competition; rather the issue is how broadly and quickly that market should be opened to competition.

Congress chose voluntary negotiations between new entrants and local telephone monopolies as the primary vehicle to achieve the broad goals of the Act. Recognizing that monopolies are unlikely to welcome with open arms future competitors into their market, Congress wisely imposed specific obligations on the monopolies, including the obligations to negotiate in good faith the resale of their services, the unbundling of their network elements, and network interconnection - - all essential for competition. Congress also wisely provided for arbitration of disputed issues before the state public utility commissions if voluntary negotiations on these issues proved unsuccessful or incomplete in the time period allowed.<sup>7</sup>

Since March 1996, AT&T and GTE have been negotiating AT&T's entrance as a competitor to GTE in the areas of Florida where GTE has held the local service monopoly. As of the date of filing of this Petition, AT&T and GTE have not agreed upon a single issue critical to AT&T's entrance. Moreover, although AT&T and GTE have been able to resolve tentatively numerous "easy" technical and operational issues, finalization of these tentative agreements is, at the demand of GTE, subject to AT&T's agreeing to pay GTE's unlawfully high price for resold services, unbundled network elements, and interconnection. In fact, GTE has insisted, as a further contingency to those tentative agreements, that AT&T agree to pay the cost of GTE's

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<sup>6</sup> On August 8, 1996, the FCC released its Report and Order containing its decision and regulations for unbundling, interconnection, and services resale under the Act. The Report and Order consist of more than 700 pages. AT&T has not had an adequate opportunity to analyze the impact, if any, of the FCC's decision on positions taken in this Petition and the accompanying testimony. AT&T will file supplemental testimony addressing the impact of the FCC's decision on the issues in this arbitration.

<sup>7</sup> 47 U.S.C. § 252(b)(1).

compliance with its statutory obligations. In totality, GTE has resisted any real movement toward opening GTE's monopoly local markets to competition.

The lack of agreement on any significant issue is not surprising. Time is on GTE's side, and the longer and more complicated are its negotiations with AT&T, the longer GTE has to competitively position itself in Florida, and across the country, to retain its local service monopoly. The reason for GTE's competitive advantage, which is even greater than what the Regional Bell Operating Companies ("RBOCs") possess, is that Congress removed the federal consent decree restriction on GTE Corp. to enter the long distance marketplace without a demonstration that effective local exchange competition existed in its local exchange markets.<sup>8</sup> Thus, unlike AT&T and the RBOCs, GTE, through GTE Corp., *today* can offer packages of services including local and long distance service anywhere within GTE's local exchange markets. GTE has made it clear in its negotiations with AT&T that it fully understands its competitive advantage and has demonstrated throughout the negotiations its intent to delay agreement regarding its statutorily mandated obligations. Indeed, throughout negotiations, GTE emphasized that it was not subject to the RBOC conditions or affected by whatever statutory incentives exist for the RBOCs to open their markets to genuine local exchange competition.<sup>9</sup>

Moreover, GTE's competitive advantage should not be underestimated. Despite the public focus of the Act's impact on AT&T, MCI, and the RBOCs, GTE Corp. is the single largest local telephone holding company in the U.S. GTE Corp.'s 1995 Annual Report advises its shareholders that GTE Corp. is better positioned to maximize profits than AT&T in the new competitive marketplace because it owns the infrastructure that AT&T must use to reach its customers. The Report also states that GTE Corp. is better positioned than the RBOCs because of stronger brand recognition; its geographic dispersion which protects GTE Corp. from regional

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<sup>8</sup> 47 U.S.C. § 152 note.

<sup>9</sup> See Letter from Don McCleod to Ron Shurter, dated May 1, 1996, Tab 19 of AT&T's relevant documents filed today in this matter.

economic upheavals; and attractive markets in major suburban areas, which gives GTE Corp. the best of two worlds, the growth and affluent characteristics of big city suburbs combined with less competitive pressures in the rural areas GTE Corp. serves.<sup>10</sup> As a result, GTE is in a position to leverage its status as a monopoly provider of local services in Florida to the competitive advantage of itself and its affiliates in the long distance market. Absent swift and decisive action by this Commission to open GTE's local markets in Florida to competition, competition may not arise and certainly will not arise in the manner and time that the Act envisions.

To counterbalance GTE's competitive advantage and to allow Florida consumers to benefit from real choice in the local services market, AT&T entered into negotiations with GTE guided by several principles established by the Act, and recognized by the FCC, that are fundamental to achieving effective competition, and, hence, clearly reasonable. First, when it purchases GTE's services for resale, AT&T must be able to offer to its customers the same range, experience, and quality of service which GTE offers its customers ("parity"). Second, the wholesale price of services that AT&T purchases from GTE for resale must be set at a competitive level after considering all costs that will be avoided, e.g., all retail costs. Third, AT&T must have access to a basic set of unbundled network elements to allow AT&T to provide service to its customers. Fourth, the price that AT&T pays GTE for interconnection services and for the purchase of unbundled network elements must reflect true economic cost, and not simply GTE's historic, monopolistic prices. This price must be non-discriminatory so that no carrier, including GTE, has any advantage. Finally, as a new entrant, AT&T must be able to choose to enter the market using one, or a combination of, resale, unbundled network elements, and

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<sup>10</sup> Forty-five percent of GTE Corp.'s U.S. access lines are in Florida, California, and Texas, the three largest Sunbelt states, and a third of GTE Corp.'s U.S. access lines are in five key metropolitan markets: Tampa/St. Petersburg, Dallas, Honolulu, Los Angeles, and Riverside/San Bernardino, Calif. GTE 1995 Annual Report, at 4-5, 12, Tab 101 of AT&T's relevant documents filed today in this matter.

interconnection services. AT&T intends to use all of these alternatives to provide services to consumers in Florida.

Despite AT&T's best efforts, GTE has not agreed to terms that are consistent with these principles. In essence, GTE's position is that, if AT&T will agree to pay a high enough price for wholesale services, unbundled elements, and interconnection, GTE will provide AT&T with what it requires. Quite clearly, GTE has taken the position that price is an "enabling" issue for the resolution of major technical issues. Indeed, GTE has even made the resolution of issues such as transitioning customers between local exchange carriers -- using the same procedures as are currently used for changes in long distance carriers -- subject to agreement on price.

GTE's tactics have served its interests well. GTE and its affiliates are now able to offer Florida consumers both local exchange and long distance, while AT&T remains shut out of GTE's local exchange markets in Florida. Thus, GTE has demonstrated an unwillingness to relinquish its monopoly control over the local telephone market, barring consumers from the competitive choices that the Act requires and consumers deserve. AT&T, therefore, is requesting this Commission to open the local telecommunications market that GTE serves by resolving the disputed issues in accordance with Congress' goal of consumer choice through fair competition.

### **ISSUES FOR THE COMMISSION**

Attachment 1 to this Petition is a list of the specific issues AT&T requests this Commission to decide, as well as a statement of the parties' positions with respect to each issue and a reference to the AT&T witness whose testimony addresses the issues raised. The specific issues AT&T presents in this arbitration and listed in Attachment 1 fall mainly into three categories:

1. GTE's ability to limit the services and facilities that it will make available to AT&T and to restrict how AT&T may use any GTE services and facilities that are made available.

2. The manner in which AT&T will be able to present its service offerings to consumers and whether AT&T will be able to differentiate its services from those of GTE. These issues reflect GTE's refusal to acknowledge its obligation under the Act to provide AT&T with services, unbundled network elements, and interconnection under terms and conditions that are at least equal to those GTE provides itself.

3. The prices GTE will charge AT&T for services, facilities, connections, and other capabilities.

There is an additional group of issues that AT&T believes the Commission should not have to consider in this arbitration. As mentioned above, the parties have reached agreement on a large number of second and third-tier issues, although comprehensive contractual language still is still being negotiated. The parties' tentative agreements on these issues are reflected in the parties' joint negotiation tracking mechanism.<sup>11</sup> Currently, however, GTE is insisting that any final agreement on those issues is contingent upon agreement regarding price and cost recovery. AT&T expects to continue contractual negotiations during the pendency of the arbitration. In addition, AT&T expects that GTE will deem the orders of this Commission regarding the pricing of services available for resale, unbundled network elements, and interconnection to represent the agreement on price and cost recovery GTE seeks, allowing for final agreement on issues for which tentative agreement now exists. Thus, if AT&T's expectations are accurate, those issues need not be arbitrated.

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<sup>11</sup> A copy of this document, a matrix that reflects GTE's position with respect to each of AT&T's requirements as of July 27, 1996, is Tab 115 of AT&T's relevant documents. This matrix articulates the more than 500 particular sub-issues that have been the subject of the negotiations between AT&T and GTE, and indicates by the designation "closed" those issues upon which the parties have tentatively agreed. Because the matrix contains confidential GTE information, it will be filed pursuant to Florida regulation, as explained below in footnote 12.

## **THE NEGOTIATIONS**

On March 11, 1996, AT&T requested formal negotiations with GTE for interconnection and related services in the Florida local exchange market. The parties have held negotiation sessions at various levels from time to time since that date.

On June 14, 1996, GTE submitted a local services resale pricing proposal. On July 1, 1996, AT&T provided GTE with a counteroffer, which included prices for resold services, unbundled network elements, and interconnection.

On July 2, 1996, AT&T submitted to GTE its own comprehensive interconnection agreement ("Interconnection Agreement"), covering terms and conditions AT&T understood GTE had accepted, and terms and conditions, that, while not yet accepted by GTE, are consistent with the Act. A copy of the proposed Interconnection Agreement, current as of August 14, 1996, is Attachment 2 to the Petition.

On July 17, 1996, discussions were first held regarding the price for unbundled network elements. On July 25, 1996, GTE presented to AT&T its first proposal regarding the price for unbundled network elements. On August 1, 1996, AT&T provided GTE with its second counteroffer regarding pricing.

## **SUBMISSION OF RELEVANT DOCUMENTATION**

AT&T is filing with its Petition all relevant documentation concerning issues that are unresolved, the position of each party regarding such issues, and the terms and conditions AT&T believes GTE has accepted, including the issues subject to tentative agreement.<sup>12</sup> To the extent

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<sup>12</sup> Pursuant to agreement between GTE and AT&T, certain documentation obtained during the negotiation process is being treated as proprietary and confidential and will be used only after notification to the other party. Accordingly, documentation obtained from GTE will be filed in accordance with Rule 25-22.006, Florida Administrative Code, as soon as GTE indicates which portions are proprietary.

GTE disputes any of the issues AT&T believes GTE has accepted, or disputes any of the issues subject to tentative agreement, AT&T includes those issues for resolution in this arbitration and will supplement this Petition and provide additional relevant documents as necessary.

### **REQUESTED COMMISSION ACTIONS**

AT&T respectfully requests that the Commission take the following actions as a result of this Petition:

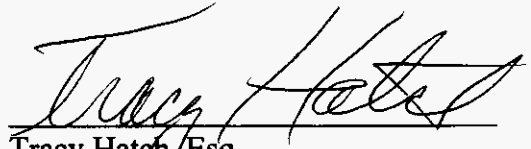
- A. Arbitrate the unresolved issues between AT&T and GTE within the timetable specified in the Act;
- B. Issue orders requiring GTE to:
  - 1. Offer for resale to AT&T at wholesale rates all of GTE's retail telecommunications services;
  - 2. Not impose restrictions on the resale of GTE services;
  - 3. Implement a process and standards that will ensure that AT&T receives services for resale, interconnection, and unbundled network elements that are at least equal in quality to those that GTE provides itself and its affiliates;
  - 4. Compensate AT&T for revenue losses caused by GTE errors that lead to unbillable or uncollectible AT&T revenues;
  - 5. (a) Provide to AT&T real-time and interactive access via electronic interfaces to operational support systems that perform pre-ordering and ordering, provisioning, maintenance/repair, and billing; and  
(b) Implement immediately a mutually acceptable real-time automated interface (gateway) as an interim measure;
  - 6. Route directory assistance and operator services calls directly to AT&T's platform;

7. Provide AT&T with the requested billing and usage recording services;
8. Provide AT&T with space in the GTE Directory that is equal to the space GTE provides itself;
9. Provide secondary directory distribution to AT&T customers at no additional charge;
10. Provide AT&T access to GTE's directory assistance database;
11. Provide AT&T with loop testing information prior to the establishment of service to an AT&T customer;
12. Refer to AT&T each request for PIC changes for AT&T local service customers;
13. Execute a "change as is" service order when a GTE customer requests to switch to AT&T local service on an "as is" basis and utilize a blanket letter of authorization for the change;
14. Recover the costs GTE incurs to develop and implement the systems and processes required by the Act in a competitively neutral way and not through direct charging to AT&T;
15. Provide AT&T access to each of the twelve unbundled network elements requested by AT&T, including all of the features, functions, and capabilities of each element;
16. Not limit AT&T's ability to combine unbundled network elements with one another, or with services for resale, or with AT&T's or a third party's facilities, in order to provide telecommunications services to consumers in any manner AT&T chooses;
17. Make available to AT&T rights-of-way and collocation capacity on terms and conditions equal to that GTE provides itself;

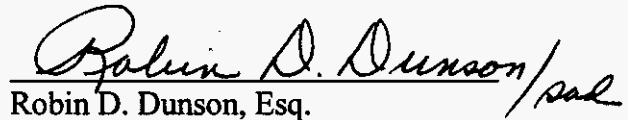
18. Provide interim number portability solutions including remote call forwarding, flex-direct inward calling, route index-portability hub, and local exchange routing guide reassignment;
19. Negotiate a long-term number portability solution;
20. Not limit interconnection between two carriers collocated on GTE's premises, or on the types of equipment that can be collocated, or on the types of uses of the collocated space;
21. Provide AT&T with access to GTE's unused transmission media;
22. Provide to AT&T GTE local services for resale at wholesale rates equal to GTE's retail rates less all direct and indirect costs related to retail functions;
23. Provide to AT&T GTE local services for resale at wholesale prices that exclude any new costs GTE claims to incur because of selling at wholesale;
24. Provide to AT&T GTE local services for resale at wholesale rates equal to GTE's retail rates less 30.9%;
25. Price unbundled network elements, call transport and termination, interconnection, collocation, rights-of-way, poles, ducts and conduits, interim and permanent number portability, AIN, and unused transmission media at prices equal to the Total Service Long Run Incremental Cost (TSLRIC);
26. (a) Provide TSLRIC studies for all unbundled network elements;  
(b) Price on an interim basis the unbundled network elements listed in Exhibit MG-1 to the testimony of Mr. Guedel at the prices specified in that exhibit; and

- (c) Price on an interim basis at any appropriate FCC default price all unbundled network elements identified on Exhibit MG-2 to Mr. Guedel's testimony;
27. Price call termination at \$.002 per interconnection minute of use;
  28. Utilize "bill and keep" as an alternative to the terminating carrier charging TSLRIC until TSLRIC studies are produced;
  29. (a) Produce TSLRIC cost studies for access to rights-of-way, poles, conduits and ducts, collocation, number portability, AIN, and unused transmission media; and  
(b) Price the items in the interim at any appropriate FCC default price;
  30. Execute the Interconnection Agreement with AT&T, the term of which is long enough to permit AT&T to make marketing and investments plans, with the terms and conditions not subject to modification through subsequent tariff filings.

Respectfully submitted this 16th day of August, 1996.



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ATTORNEYS FOR AT&T  
COMMUNICATIONS OF THE  
SOUTHERN STATES, INC.

**AT&T'S LIST OF ISSUES TO BE DECIDED BY THE FLORIDA PUBLIC SERVICE COMMISSION  
IN THE ARBITRATION OF THE INTERCONNECTION AGREEMENT BETWEEN AT&T AND GTE**

| ISSUES  | AT&T Position  | AT&T<br>Witness | GTE Position   |
|---|--|-----------------|--|
| <b>LOCAL SERVICE RESALE</b>   |  |                 |  |
| 1. Must GTE offer for resale to AT&T at wholesale rates all of GTE's retail telecommunications services?  | The Act requires that GTE offer for resale to AT&T at wholesale rates all telecommunications services GTE sells at retail to non-carrier subscribers.                                  | Sather          | The Act does not require GTE to offer certain services at wholesale rates, including withdrawn, promotional, discount calling plans, and payphone services.  |
| 2. Must GTE be prohibited from imposing restrictions on the resale of GTE services?   | Resale restrictions are presumptively unreasonable and prohibited by the Act.  | Sather          | All current category-to-category restraints should continue.   |
| <b>PARITY</b>   |  |                 |  |
| 3. Must GTE implement a process and standards that will ensure that AT&T receives services for resale, interconnection, and unbundled network elements that are at least equal in quality to those that GTE provides itself and its affiliates? | The Act requires such parity. 47 U.S.C. § 251(c)(2)-(4). Absent parity between the entrant and GTE, the entrant can not compete effectively with GTE.                                  | Carroll         | Parity requires that GTE provide services for resale, interconnection, and unbundled network elements under terms and conditions that are equal to those GTE uses to provide such services and facilities to other carriers and retail end-users; parity between new entrants and GTE is not required. |
| 4. Must GTE take financial responsibility for its own actions in causing, or its lack of actions in preventing, unbillable or uncollectible AT&T revenues?  | GTE is the only party in a position to prevent the errors that lead to unbillable or uncollectible revenues. Thus, GTE should compensate AT&T for revenue losses caused by GTE errors. | Carroll         | GTE refuses to accept liability for its errors.  |

| ISSUES  |  | AT&T Position  | AT&T Witness | GTE Position  |
|---|--|--|--------------|---|
| <p>5. Should GTE be required to provide real-time and interactive access via electronic interfaces to perform the following?</p> <p>Pre-Ordering and Ordering<br/>Provisioning<br/>Maintenance/Repair<br/>Billing</p> |  | The Act requires GTE to provide to AT&T services equal to that which GTE provides to itself and its affiliates. This requires the requested real-time and interactive access via electronic interfaces. Because AT&T's ability to attract and retain customers is highly dependent upon such interfaces, GTE should immediately implement a mutually acceptable real-time automated interface (gateway) as an interim measure. | Carroll      | GTE will not establish a workplan to accomplish real-time and interactive electronic interfaces until AT&T agrees to GTE's price demands and agrees to pay GTE's development costs. |
| 6. Must GTE route directory assistance and operator services calls directly to AT&T's platform?   |  | The Act requires this customized routing. 47 U.S.C. § 251(c).  | Carroll      | GTE has no legal requirement to route such calls to AT&T.   |
| 7. Must GTE provide AT&T with the billing and usage recording services that AT&T requested?   |  | These services are necessary for accurate and timely billing services, which are important to customer satisfaction.   | Carroll      | Agreement is contingent on AT&T bearing GTE's implementation costs.   |
| 8. Must GTE provide AT&T with space in the GTE Directory that is equal to the space GTE provides itself?  |  | AT&T requires its listing in the GTE Directory to be at parity with GTE.   | Carroll      | GTE refuses to meet AT&T's request.   |
| 9. Must GTE provide secondary directory distribution to AT&T customers at no additional charge where GTE does not charge its own customers for that service?  |  | The Act requires that GTE provide services for resale under non-discriminatory terms and conditions.   | Carroll      | GTE refuses to meet AT&T's request.   |
| 10. Must GTE provide AT&T access to GTE's directory assistance database?  |  | AT&T's access to GTE's directory assistance database is necessary for AT&T to provide directory assistance services, which are important to customer satisfaction.   | Carroll      | GTE does not currently offer this access and it is not required to configure, modify, or customize service offerings to satisfy AT&T's request.                                     |

| ISSUES  |  | AT&T Position   | AT&T Witness | GTE Position  |
|---|--|---|--------------|---|
| 11. Must GTE provide to AT&T loop testing information prior to the establishment of service to an AT&T customer?  |  | Loop testing is necessary to allow AT&T to verify that the service meets quality standards, a process important to customer satisfaction.   | Carroll      | GTE refuses to meet AT&T's request.   |
| 12. Must GTE refer requests for PIC changes for AT&T local service customers to AT&T?   |  | This process is a necessary component of AT&T's ability to fulfill its responsibility as a local service provider.  | Carroll      | GTE refuses AT&T's request.   |
| 13. Must GTE execute a "change as is" service order when a GTE customer requests to switch to AT&T local service on an "as is" basis and utilize a blanket letter of authorization for the change?  |  | This process is necessary to ensure successful provisioning of customer orders without disruption of the customer's expected local exchange services.   | Shurter      | Use of a blanket letter would violate CPNI.   |
| 14. Should GTE be required to recover in a competitively neutral way the costs of development and implementation of any systems or processes required by the Act?   |  | The procompetitive purpose of the Act requires that GTE recover its costs through its on-going business operations and not through direct charging to AT&T.   | Shurter      | AT&T should bear GTE's costs of implementation.   |
| <b>UNBUNDLED NETWORK ELEMENTS/TECHNICAL</b>   |  |   |              |   |
| 15. Must GTE provide AT&T access to each of the following twelve unbundled network elements requested by AT&T, including all of the features, functions, and capabilities of each element?<br>Network Interface Device<br>Loop Distribution<br>Loop Concentrator/Multiplexer<br>Loop Feeder<br>Local Switching<br>Operator Systems<br>Dedicated Transport<br>Common Transport<br>Tandem Switching<br>Signaling Link Transport<br>Signal Transfer Points<br>Service Control Points/Databases |  | The Act requires that GTE provide access to all unbundled network elements that AT&T requests unless not technically feasible. It is technically feasible to provide access to the twelve network elements requested by AT&T. | Crafton      | Certain of the capabilities requested by AT&T, such as Operator Systems, are not unbundled network elements under the Act. For others, such as the sub-loop elements, it is not technically feasible to provide AT&T with access to them. |

| ISSUES   | AT&T Position   | AT&T Witness | GTE Position  |
|--|---|--------------|---|
| 16. Must GTE be prohibited from placing any limitations on AT&T's ability to combine unbundled network elements with one another, or with resold services, or with AT&T's or a third parties facilities, to provide telecommunications services to consumers in any manner AT&T chooses? | The Act imposes this prohibition on GTE. 47 U.S.C. § 251(c)(3).   | Crafton      | AT&T may not combine unbundled network elements so as to substantially replicate any services GTE offers for resale.        |
| 17. Must GTE make right-of-way and collocation capacity available to AT&T on terms and conditions equal to that it provides itself?  | The Act requires non-discriminatory access. Any difference in access between GTE and AT&T is discriminatory.  | Crafton      | Non-discriminatory requires only that GTE treat all third parties seeking access the same. Parity with GTE is not required. |
| 18. Must GTE provide interim number portability solutions including remote call forwarding, flex-direct inward calling, route index-portability hub, and local exchange routing guide reassignment?  | Use of all options is necessary to assure that AT&T customers are provided with efficient call routing when they choose to retain their local telephone number. | Crafton      | GTE refuses to meet AT&T's request.   |
| 19. Must GTE negotiate a long-term number portability solution?  | The Act requires that such a solution be implemented. 47 U.S.C. § 251(b)(2).  | Crafton      | GTE refuses to meet AT&T's request.   |
| 20. Must GTE be prohibited from placing any limitations on interconnection between two carriers collocated on GTE's premises, or on the types of equipment that can be collocated, or on the types of uses of the collocated space?  | Such interconnection and unrestricted use provide new carriers with options that will facilitate competition.   | Crafton      | GTE refuses to meet AT&T's request.   |
| 21. Must GTE provide AT&T with access to GTE's unused transmission media?  | Provision of unused transmission media will allow AT&T to add efficiently to its own transmission capabilities.   | Crafton      | GTE refuses to meet AT&T's request.   |

| ISSUES  | AT&T Position   | AT&T Witness                | GTE Position  |
|---|---|-----------------------------|---|
| PRICE   |   |                             |   |
| 22. Must appropriate wholesale rates for GTE services subject to resale equal GTE's retail rates less all direct and indirect costs related to retail functions?  | Wholesale rates must exclude all direct and indirect costs related to retail functions pursuant to 47 U.S.C. § 252(d)(3) and the need to foster competition by leveling costs at the wholesale level.                                 | Gillan<br>Lerma<br>Kaserman | Wholesale rates should equal retail rates less costs actually avoided.  |
| 23. Should GTE's wholesale prices exclude any new costs GTE claims to incur because of selling at wholesale?  | 47 U.S.C. § 252(d)(3) does not provide for the recognition of any increased costs.  | Lerma                       | Increased costs should be recognized.   |
| 24. What are appropriate GTE wholesale rates?   | AT&T's study of available GTE cost data shows that all costs related to retail functions at the local service level equal 30.9% of total local service revenue. Thus, GTE wholesale rates should equal GTE's retail rates less 30.9%. | Lerma<br>Gillan             | The retail costs that GTE will actually avoid for local services are approximately 7% of GTE's local service revenue.           |
| 25. Must Total Service Long Run Incremental Cost ("TSLRIC") be used to price unbundled network elements, call transport and termination, interconnection, collocation, rights-of-ways, poles, ducts and conduits, interim and permanent number portability, AIN, and unused transmission media? | The Act requires that unbundled network elements, call transport and termination and all aspects of interconnection be priced at economic cost. 47 U.S.C. § 252(d)(1), (2). TSLRIC reflects economic cost.                            | Kaserman<br>Gillan          | "TSLRIC plus," using assumptions GTE believes appropriate. In the absence of TSLRIC data, current tariff rates are appropriate. |

| ISSUES   | AT&T Position  | AT&T Witness                 | GTE Position  |
|--|--|------------------------------|---|
| 26. What is the appropriate price for each unbundled network element that AT&T has requested?                    | The appropriate price equals TSLRIC. GTE has provided no TSLRIC studies. GTE should be ordered to develop such studies. In the absence of TSLRIC studies, rates were determined using the Hatfield Model where appropriate data were available. Those rates are listed in Exhibit MG-1 to the testimony of Mr. Guedel. Exhibit MG-2 to Mr. Guedel's testimony identifies operator systems and other elements that have no price because of the absence of appropriate data. For operator systems and those other elements, interim prices should reflect any appropriate FCC default prices. | Wood<br>Guedel               | "TSLRIC plus," using assumptions GTE believes appropriate. In the absence of TSLRIC data, current tariff rates are appropriate. |
| 27. What is the appropriate price for call termination?  | \$.002 per interconnection minute of use.  | Guedel                       | GTE has proposed a proprietary rate.  |
| 28. Is "bill and keep" an appropriate alternative to the terminating carrier charging TSLRIC?                    | "Bill and keep" is appropriate in the short term while TSLRIC studies are performed. 47 U.S.C. § 252(d)(2)(B).   | Guedel                       | Use specific per minute prices.   |
| 29. What is the appropriate price for certain support elements relating to interconnection and network elements? | No TSLRIC cost studies exist regarding access to rights-of-way, poles, conduits and ducts, collocation, number portability, AIN, and unused transmission media. The Commission should order GTE to develop and produce appropriate TSLRIC studies for those support elements relating to interconnection and network elements. In the interim, prices should reflect any appropriate FCC default prices.   | Guedel<br>Gillan<br>Kaserman | Current FCC rates are not compensatory.   |

| ISSUES  | AT&T Position   | AT&T Witness | GTE Position                     |
|---|---|--------------|----------------------------------|
| GENERAL   |   |              |                                  |
| 30. Must the term of the Interconnection Agreement be long enough to permit AT&T to make marketing and investment plans, with the terms and conditions not subject to modification through subsequent tariff filings? | Such terms are necessary to facilitate competition in the local market. | Shurter      | GTE needs to retain flexibility. |

**INTERCONNECTION, SERVICES  
AND NETWORK ELEMENTS**

**AGREEMENT**

**between**

**GTE [COMPANY] INCORPORATED**

**and**

**AT&T Corp.**

Effective Date: \_\_\_\_\_, 1996

**AT&T PROPRIETARY  
DRAFT FOR DISCUSSION PURPOSES**

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**ATTACHMENTS**

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## **PREFACE**

## **AGREEMENT**

This Agreement, which shall become effective as of the \_\_\_\_ day of \_\_\_\_\_, 1996, (the "Effective Date") is entered into by and between AT&T Corp., a New York Corporation, having an office at 295 North Maple Avenue, Basking Ridge, New Jersey 07920, on behalf of itself, and its Affiliates (individually and collectively "AT&T"), and GTE Corporation, a \_\_\_\_\_ corporation, having offices at One Stamford Forum, Stamford, Connecticut 06904 and \_\_\_\_\_ Incorporated, a \_\_\_\_\_ corporation, having offices for purposes of this Agreement at 600 Hidden Ridge, Irving, Texas 75015 (collectively referred to as "GTE"). This Agreement covers services in the state of \_\_\_\_\_ (the "State").

## **RECITALS**

WHEREAS, The Telecommunications Act of 1996 (the "Act") was signed into law on February 8, 1996; and

WHEREAS, the Act places certain duties and obligations upon, and grants certain rights to, Telecommunications Carriers, with respect to the interconnection of their networks, resale of their telecommunications services, access to their poles, ducts, conduits and rights-of-way and, in certain cases, the offering of certain unbundled network elements and physical collocation of equipment in Local Exchange Carrier premises,

WHEREAS, GTE is an Incumbent Local Exchange Carrier; and

WHEREAS, AT&T is a Telecommunications Carrier and has requested that GTE negotiate an Agreement with AT&T for the provision of Interconnection Services, Unbundled Network Elements, Local Services for Resale, collocation and access to poles, ducts, conduits and rights of way pursuant to the Act and in conformance with GTE's duties under the Act; and

WHEREAS, interconnection between competing Local Exchange Carriers (LECs) is necessary and desirable for the mutual exchange and termination of traffic originating on each LEC's network and the Parties desire to exchange such traffic and related signaling in a technically and economically efficient manner at defined and mutually agreed upon points of interconnection: and

WHEREAS, the Parties have arrived at this Agreement through voluntary negotiations undertaken pursuant to the Act,

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DRAFT FOR DISCUSSION PURPOSES**

NOW, THEREFORE, in consideration of the premises and the mutual covenants of this Agreement, AT&T and GTE hereby agree as follows:

### **SCOPE, INTENT AND DEFINITIONS**

This Agreement governs the purchase by AT&T of certain telecommunications services provided by GTE in its service areas for resale by AT&T, the purchase by AT&T of certain unbundled network elements from GTE, the terms and conditions of the collocation of certain equipment of AT&T in the premises of GTE, the provision by GTE of access to its poles, conduits and rights of way and the reciprocal interconnection of traffic between each Party's local facilities.

The Parties agree that their entrance into this Agreement is without prejudice to any positions they may have taken previously, or may take in the future, in any legislative, regulatory, judicial or other public forum addressing any matters, including matters related to the same types of arrangements covered in this Agreement.

For purposes of this Agreement, certain terms have been defined in Attachment 10 and elsewhere in this Agreement to encompass meanings that may differ from, or be in addition to, the normal connotation of the defined word. Unless the context clearly indicates otherwise, any term defined or used in the singular shall include the plural. The words "shall" and "will" are used interchangeably throughout this Agreement and the use of either connotes a mandatory requirement. The use of one or the other shall not mean a different degree of right or obligation for either Party. A defined word intended to convey its special meaning is capitalized when used. Other terms that are capitalized, and not defined in this Agreement, shall have the meaning given them in the Act. For convenience of reference only, Attachment 11 provides a list of acronyms used throughout this Agreement.

### **GENERAL TERMS AND CONDITIONS**

#### **1. Provision of Local Service and Unbundled Network Elements**

This Agreement, which consists of these General Terms and Conditions and Attachments 1-14 and their accompanying Appendices, sets forth the terms, conditions and prices under which GTE agrees to provide (a) services for resale (hereinafter referred to as "Local Services") and (b) certain unbundled Network Elements, Ancillary Functions and additional features to AT&T (hereinafter collectively referred to as "Network Elements") or combinations of such Network Elements ("Combinations") for AT&T's own use or for resale to others, and for purposes of offering voice, video, or data services of any kind, including, but not limited to, local exchange services, intrastate toll services,

**AT&T PROPRIETARY  
DRAFT FOR DISCUSSION PURPOSES**

and intrastate and interstate exchange access services and (c) access to GTE's poles, conduits and rights of way. This Agreement also sets forth the terms and conditions for the interconnection of AT&T's local network to GTE's local network and the reciprocal compensation for the transport and termination of reciprocal interconnection telecommunications services, (hereinafter referred to as "Interconnection Services".) Unless otherwise provided in this Agreement, GTE will perform all of its obligations hereunder throughout its service area in the State, subject to the requirements of this Agreement. The Network Elements, Combinations or Local Services provided pursuant to this Agreement may be connected to other Network Elements, Combinations or Local Services provided by GTE or to any Network Elements, Combinations or Local Services provided by AT&T itself or by any other vendor. Subject to the requirements of this Agreement, AT&T may, at any time add, delete, relocate or modify the Local Services, Network Elements or Combinations purchased hereunder. GTE will not discontinue any Network Element, Combination or Local Service provided hereunder without the prior written agreement of AT&T.

2. **Term of Agreement**

When executed by authorized representatives of GTE and AT&T, this Agreement shall become effective as of the Effective Date stated above for a period of five (5) years and shall continue in effect for consecutive one (1) year terms thereafter unless either Party gives the other Party at least ninety (90) calendar days' written notice of termination, which termination shall be effective at the end of the then-current term.

3. **Termination of Agreement; Transitional Support**

- 3.1 AT&T may elect at any time to terminate this entire Agreement at AT&T's sole discretion, upon ninety (90) days written notice to GTE. In such case, AT&T's liability shall be limited to payment of the amounts due for Local Services, Network Elements, Combinations and Interconnection Services provided up to and including the date of termination. GTE recognizes that the Local Services, Network Elements and Combinations provided hereunder are vital to AT&T and must be continued without interruption, and that upon the termination or expiration of this Agreement, AT&T may itself provide or retain another vendor to provide comparable Local Services, Network Elements, or Combinations. GTE agrees to cooperate in an orderly and efficient transition to AT&T or another vendor such that the level and quality of the Local Services, Network Elements and Combinations are not degraded and to exercise diligent efforts to assist in an orderly and efficient transition.

- 3.2 AT&T may terminate any Local Service(s), Network Element(s) or Combination(s) provided under this Agreement upon thirty (30) days written notice to GTE, unless a different notice period or different conditions are specified for termination of such Local Service(s), Network Element(s) or Combination(s) in this Agreement, in which event such specific period and conditions shall apply.

4. **Good Faith Performance**

In the performance of their obligations under this Agreement, the Parties shall act in good faith and consistently with the intent of the Act. In situations in which notice, approval or similar action by a Party is permitted or required by any provision of this Agreement, (including, without limitation, the obligation of the Parties to further negotiate the resolution of new or open issues under this Agreement), such action shall not be unreasonably delayed, withheld or conditioned.

5. **Option to Obtain Local Services or Network Elements Under Other Agreements**

If at any time while this Agreement is in effect, GTE enters into an agreement with another party to provide Local Services, Network Elements or Combinations GTE shall provide such agreement to AT&T within five (5) days of the date the agreement is signed. If such agreement contains prices, terms or conditions different from those available under this Agreement, then AT&T, at its discretion, may substitute the prices, terms and conditions, in whole or in part, offered to that other party in place of the relevant prices, terms and conditions in this Agreement. AT&T may exercise this option by delivering written notice to GTE. GTE shall thereafter continue to provide Local Services, Network Elements or Combinations to AT&T, as required by this Agreement, subject to the prices, terms, and conditions that AT&T elects to substitute from such other third party agreement.

6. **Responsibility of Each Party**

Each Party is an independent contractor, and has and hereby retains the right to exercise full control of and supervision over its own performance of its obligations under this Agreement and retains full control over the employment, direction, compensation and discharge of all employees assisting in the performance of such obligations. Each Party will be solely responsible for all matters relating to payment of such employees, including compliance with social security taxes, withholding taxes and all other regulations governing such matters. Each Party will be solely responsible for proper handling, storage, transport and disposal at its own expense of all (i) substances or

materials that it or its contractors or agents bring to, create or assume control over at Work Locations or, (ii) Waste resulting therefrom or otherwise generated in connection with its or its contractors' or agents' activities at the Work Locations. Subject to the limitations on liability contained in this Agreement and except as otherwise provided in this Agreement, each Party shall be responsible for (i) its own acts and performance of all obligations imposed by Applicable Law in connection with its activities, legal status and property, real or personal and, (ii) the acts of its own affiliates, employees, agents and contractors during the performance of that Party's obligations hereunder.

**7. Governmental Compliance**

AT&T and GTE each shall comply with all Applicable Law that relates to i) its obligations under or activities in connection with this Agreement; or ii) its activities undertaken at, in connection with or relating to Work Locations. AT&T and GTE each agree to indemnify, defend (at the other Party's request) and save harmless the other, each of its officers, directors and employees from and against any losses, damages, claims, demands, suits, liabilities, fines, penalties and expenses (including reasonable attorneys' fees) that arise out of or result from i) its failure or the failure of its contractors or agents to so comply or ii) any activity, duty or status of it or its contractors or agents that triggers any legal obligation to investigate or remediate environmental contamination. GTE shall accept orders for Local Service, Network Elements or Combinations in accordance with Part 64 of the FCC Rules. GTE, will be solely responsible for obtaining from governmental authorities, building owners, other carriers, and any other persons or entities, all rights and privileges (including, but not limited to, space and power), which are necessary for GTE to provide the Network Elements and Local Services pursuant to this Agreement.

**8. Responsibility For Environmental Contamination**

- 8.1 AT&T shall in no event be liable to GTE for any costs whatsoever resulting from the presence or Release of any Environmental Hazard that AT&T did not introduce to the affected Work Location. GTE shall indemnify, defend (at AT&T's request) and hold harmless AT&T, each of its officers, directors and employees from and against any losses, damages, claims, demands, suits, liabilities, fines, penalties and expenses (including reasonable attorneys' fees) that arise out of or result from (i) any Environmental Hazard that GTE, its contractors or agents introduce to the Work Locations or (ii) the presence or Release of any Environmental Hazard for which GTE is responsible under Applicable Law.

- 8.2 GTE shall in no event be liable to AT&T for any costs whatsoever resulting from the presence or Release of any Environmental Hazard that GTE did not introduce to the affected Work Location. AT&T shall indemnify, defend (at GTE's request) and hold harmless GTE, each of its officers, directors and employees from and against any losses, damages, claims, demands, suits, liabilities, fines, penalties and expenses (including reasonable attorneys' fees) that arise out of or result from (i) any Environmental Hazard that AT&T, its contractors or agents introduce to the Work Locations or (ii) the presence or Release of any Environmental Hazard for which AT&T is responsible under Applicable Law.

9. **Regulatory Matters**

- 9.1 GTE shall be responsible for obtaining and keeping in effect all FCC state regulatory commission, franchise authority and other regulatory approvals that may be required in connection with the performance of its obligations under this Agreement. AT&T shall be responsible for obtaining and keeping in effect all FCC, state regulatory commission, franchise authority and other regulatory approvals that may be required in connection with its offering of services to AT&T Customers contemplated by this Agreement. AT&T shall reasonably cooperate with GTE in obtaining and maintaining any required approvals for which GTE is responsible, and GTE shall reasonably cooperate with AT&T in obtaining and maintaining any required approvals for which AT&T is responsible.
- 9.2 If GTE files a tariff or make another similar filing in connection with the performance of any action that would otherwise be governed by this Agreement, GTE shall: (i) consult with AT&T reasonably in advance of such filing about the form and substance of such filing, (ii) provide to AT&T its *proposed tariff and obtain AT&T's agreement on the form and substance of such tariff prior to such filing*, and (iii) take all steps reasonably necessary to ensure that such tariff or other filing imposes obligations upon GTE that are identical to those provided in this Agreement and preserves for AT&T the full benefit of the rights otherwise provided in this Agreement. In no event shall GTE file any tariff that purports to govern the provision of Local Service, Network Elements or Combinations to AT&T that is inconsistent with the rates and other terms and conditions set forth in this Agreement. If, subsequent to the effective date of any such tariff, GTE is ordered not to file tariffs with the State regulatory commission or the FCC, or is permitted not to file tariffs (and elects not to do so), either generally or for specific Local Services, Network Elements, or Combinations, the terms and conditions of such tariffs as of the date on which the requirement to file such tariffs was lifted shall, to the degree not inconsistent with this Agreement, be deemed incorporated in this Agreement by reference.

- 9.3 If any final and nonappealable legislative, regulatory, judicial or other legal action materially affects any material terms of this Agreement, or the ability of AT&T or GTE to perform any material terms of this Agreement, AT&T or GTE may, on 30 days' written notice (delivered not later than 30 days' following the date on which such action has become legally binding and has otherwise become final and nonappealable) require that such terms be renegotiated, and the Parties shall renegotiate in good faith such mutually acceptable new terms as may be required. If such new terms are not renegotiated within 90 days after such notice, the Dispute shall be referred to the Alternative Dispute Resolution procedures set forth in Attachment 1.

10. **Liability and Indemnity**

- 10.1 **Liabilities of AT&T** - AT&T's liability to GTE during any Contract Year resulting from any and all causes, other than as specified in Sections 7, 8 and 10.4 below, shall not exceed an amount equal to the amount due and owing by AT&T to GTE under this Agreement during the Contract Year in which such cause accrues or arises.
- 10.2 **Liabilities of GTE** - GTE's liability to AT&T during any Contract Year resulting from any and all causes, other than as specified in Sections 7, 8 and 10.4 below, shall not exceed: (i) an amount equal to any amounts due and owing by AT&T to GTE under this Agreement during the Contract Year in which such cause accrues or arises plus (ii) any access or exchange access fees or charges payable by AT&T to GTE during the Contract Year in which such cause accrues or arises.
- 10.3 **No Consequential Damages** - NEITHER AT&T NOR GTE SHALL BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, RELIANCE, OR SPECIAL DAMAGES SUFFERED BY SUCH OTHER PARTY (INCLUDING WITHOUT LIMITATION DAMAGES FOR HARM TO BUSINESS, LOST REVENUES, LOST SAVINGS, OR LOST PROFITS SUFFERED BY SUCH OTHER PARTIES), REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, WARRANTY, STRICT LIABILITY, OR TORT, INCLUDING WITHOUT LIMITATION NEGLIGENCE OF ANY KIND WHETHER ACTIVE OR PASSIVE, AND REGARDLESS OF WHETHER THE PARTIES KNEW OF THE POSSIBILITY THAT SUCH DAMAGES COULD RESULT. EACH PARTY HEREBY RELEASES THE OTHER PARTY (AND SUCH OTHER PARTY'S SUBSIDIARIES AND AFFILIATES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS FROM ANY SUCH CLAIM. NOTHING CONTAINED IN THIS SECTION 10 SHALL LIMIT GTE'S OR AT&T'S LIABILITY TO THE OTHER FOR (i) WILFUL OR INTENTIONAL MISCONDUCT (INCLUDING GROSS NEGLIGENCE); (ii) BODILY INJURY, DEATH OR DAMAGE TO TANGIBLE REAL OR TANGIBLE PERSONAL

PROPERTY PROXIMATELY CAUSED BY GTE'S OR AT&T'S NEGLIGENT ACT OR OMISSION OR THAT OF THEIR RESPECTIVE AGENTS, SUBCONTRACTORS OR EMPLOYEES, NOR SHALL ANYTHING CONTAINED IN THIS SECTION 10 LIMIT THE PARTIES INDEMNIFICATION OBLIGATIONS, AS SPECIFIED BELOW. FOR PURPOSES OF THIS SECTION 10, AMOUNTS DUE AND OWING TO AT&T PURSUANT TO SECTION 11 (SERVICE PARITY AND THE ATTACHMENT REFERENCED IN THAT SECTION SHALL NOT BE CONSIDERED TO BE INDIRECT, INCIDENTAL, CONSEQUENTIAL, RELIANCE, OR SPECIAL DAMAGES.

- 10.4 **Obligation to Indemnify** - Each party shall, and hereby agrees to, defend at the other's request, indemnify and hold harmless the other party and each of its officers, directors, employees and agents (each, an "Indemnitee") against and in respect of any loss, debt, liability, damage, obligation, claim, demand, judgement or settlement of any nature or kind, known or unknown, liquidated or unliquidated, including without limitation all reasonable costs and expenses incurred (legal, accounting or otherwise) (collectively, "Damages") arising out of, resulting from or based upon any pending or threatened claim, action, proceeding or suit by any third party (a "Claim") (i) alleging any breach of any representation, warranty or covenant made by such indemnifying party (the "Indemnifying Party") in this Agreement, (ii) based upon injuries or damage to any person or property or the environment arising out of or in connection with this Agreement that are the result of the Indemnifying Party's actions, breach of Applicable Law, or status or the actions, breach of Applicable Law, or status of its employees, agents and subcontractors, or (iii) for actual or alleged infringement of any patent, copyright, trademark, service mark, trade name, trade dress, trade secret or any other intellectual property right, now known or later developed (referred to as "Intellectual Property Rights") to the extent that such claim or action arises from AT&T or AT&T's Customer's use of the Local Services, Network Elements or Combinations provided under this Agreement.
- 10.5 **Obligation to Defend; Notice; Co-operation** - Whenever a Claim shall arise for indemnification under this Section 10.5, the relevant Indemnitee, as appropriate, shall promptly notify the Indemnifying Party and request the Indemnifying Party to defend the same. Failure to so notify the Indemnifying Party shall not relieve the Indemnifying Party of any liability that the Indemnifying Party might have, except to the extent that such failure prejudices the Indemnifying Party's ability to defend such Claim. The Indemnifying Party shall have the right to defend against such liability or assertion in which event the Indemnifying Party shall give written notice to the Indemnitee of acceptance of the defense of such Claim and the identity of counsel selected by the Indemnifying Party. Except as set forth below, such notice to the relevant Indemnitee shall give the Indemnifying Party full authority to defend, adjust, compromise or settle such Claim with respect to which such notice shall have been given, except to the extent that any

compromise or settlement shall prejudice the Intellectual Property Rights of the relevant Indemnitees. The Indemnifying Party shall consult with the relevant Indemnitee prior to any compromise or settlement that would affect the Intellectual Property Rights or other rights of any Indemnitee, and the relevant Indemnitee shall have the right to refuse such compromise or settlement and, at the refusing party's or refusing parties' cost, to take over such defense, provided that in such event the Indemnifying Party shall not be responsible for, nor shall it be obligated to indemnify the relevant Indemnitee against, any cost or liability in excess of such refused compromise or settlement. With respect to any defense accepted by the Indemnifying Party, the relevant Indemnitee shall be entitled to participate with the Indemnifying Party in such defense if the Claim requests equitable relief or other relief that could affect the rights of the Indemnitee and also shall be entitled to employ separate counsel for such defense at such Indemnitee's expense. In the event the Indemnifying Party does not accept the defense of any indemnified Claim as provided above, the relevant Indemnitee shall have the right to employ counsel for such defense at the expense of the Indemnifying Party. Each Party agrees to cooperate and to cause its employees and agents to cooperate with the other Party in the defense of any such Claim and the relevant records of each Party shall be available to the other Party with respect to any such defense.

**11. Service Parity and Standards**

- 11.1 Notwithstanding anything in this Agreement to the contrary, GTE shall meet or exceed any service standard imposed by the FCC or by any state regulatory authority.
- 11.2 GTE shall provide AT&T with Local Services of the kind and quality necessary to ensure that AT&T can provide retail local exchange services which are at least equal in quality to comparable GTE retail local exchange services. The standards for service parity will be prescribed in an agreement and undertaking to be concluded between AT&T and GTE on or before September 1, 1996, for implementation prior to the start of operations under this Agreement.
- 11.3 GTE and AT&T agree to implement standards to measure the quality of the Local Services and Unbundled Network Elements supplied by GTE, in particular with respect to pre-ordering, ordering/provisioning, maintenance and billing. These quality standards will be prescribed in an agreement and undertaking to be concluded between AT&T and GTE on or before September 1, 1996, for implementation prior to the start of operations under this Agreement.

- 11.4 GTE shall provide AT&T with the earliest practical notice of any new or changed feature, functionality or price pertaining to pre-ordering, ordering/provisioning, maintenance and billing for Local Services necessary to ensure that AT&T can provide retail local exchange services which are at least equal in quality to comparable GTE retail local exchange services.

12. **Customer Credit History**

AT&T and GTE agree to make available to a designated third-party credit bureau, on a timely basis, such of the following customer payment history information that is available for each person or entity that applies for local or intraLata toll Telecommunications Service(s) from either carrier. Such information shall be provided on the condition that the credit bureau will only make such information available to the carrier to which the person or entity in question has applied for Telecommunication Service.

Applicants name;  
Applicant's address;  
Applicant's previous phone number; if any;  
Amount, if any, of unpaid balance in applicant's name;  
Whether applicant is delinquent on payments;  
Length of service with prior local or intraLata toll provider;  
Whether applicant had local or intraLata toll service terminated or suspended within the last six months with an explanation of the reason therefor; and  
Whether applicant was required by prior local or intraLata toll provider to pay a deposit or make an advance payment, including the amount of each.

- 12.1 **Cooperation on Fraud Minimization** - The Parties shall cooperate with one another to investigate, minimize and take corrective action in cases of fraud. The Parties' fraud minimization procedures are to be cost effective and implemented so as not to unreasonably burden or harm one Party as compared to the other. At a minimum, such cooperation shall include, when permitted by law or regulation, providing the other Party, upon reasonable request, information concerning end users who terminate services to that Party without paying all outstanding charges, when that Party is notified that such end user seeks service from the other Party. If required, it shall be the responsibility of the Party seeking the information to secure the end user's permission (in the format required by law) to obtain the information. Although in most circumstances the end user's current telephone number may be retained by the end user when switching local service providers, if an end user has past due charges associated with the account, for which payment arrangements have not been made with one Party, the end user's previous telephone number will not be made available to the other Party until the end user's outstanding balance has been paid.

**13. Force Majeure**

13.1 Except as otherwise specifically provided in this Agreement (including by way of illustration circumstances where GTE is required to implement Disaster Recovery plans to avoid delays or failure in performance and the implementation of such plans was designed to avoid the delay or failure in performance), neither Party shall be liable for any delay or failure in performance of any part of this Agreement caused by a Force Majeure condition, including acts of the United States of America or any state, territory or political subdivision thereof, acts of God or a public enemy, fires, floods, freight embargoes, earthquakes, volcanic actions, wars, civil disturbances, or other causes beyond the reasonable control of the Party claiming excusable delay or other failure to perform. Provided, Force Majeure shall not include acts of any Governmental Authority relating to environmental, health or safety conditions at Work Locations which are under the supervision of either of the Parties. If any Force Majeure condition occurs, the Party whose performance fails or is delayed because of such Force Majeure condition shall give prompt notice to the other Party, and upon cessation of such Force Majeure condition, shall give like notice and commence performance hereunder as promptly as reasonably practicable.

13.2 Notwithstanding subsection 1, preceding, no delay or other failure to perform shall be excused pursuant to this Section:

(i) by the acts or omission of a party's subcontractors, materialmen, suppliers or other third persons providing products or services to such party unless such acts or omissions are themselves the product of a Force Majeure condition, and do not relate to environmental, health or safety conditions at Work Locations, and

(ii) unless such delay or failure and the consequences thereof are beyond the control and without the fault or negligence of the Party claiming excusable delay or other failure to perform.

**14. Certain State and Local Taxes**

Any state or local excise, sales, or use taxes (excluding any taxes levied on income) resulting from the performance of this Agreement shall be borne by the Party upon which the obligation for payment is imposed under applicable law, even if the obligation to collect and remit such taxes is placed upon the other Party. The collecting Party shall charge and collect from the obligated Party, and the obligated Party agrees to pay to the collecting Party, all applicable taxes, except to the extent that the obligated Party notifies the collecting Party and provides to the collecting Party appropriate documentation that qualifies the obligated Party for a full or partial exemption. Any such taxes shall be shown as separate items on applicable billing documents between the Parties. The obligated Party may contest the same in

good faith, at its own expense, and shall be entitled to the benefit of any refund or recovery, provided that such Party shall not permit any lien to exist on any asset of the other Party by reason of the contest. The collecting Party shall cooperate in any such contest by the other Party.

**15. Alternative Dispute Resolution**

- 15.1 All disputes, claims or disagreements (collectively "Disputes") arising under or related to this Agreement or the breach hereof, except those arising pursuant to Attachment 6, Connectivity Billing, shall be resolved according to the procedures set forth in Attachment 1. Disputes involving matters subject to the Connectivity Billing provisions contained in Attachment 6, shall be resolved in accordance with the Billing Disputes section of Attachment 6. In no event shall the parties permit the pendency of a Dispute to disrupt service to any AT&T Customer contemplated by this Agreement. The foregoing notwithstanding, neither this Subsection 15.1 nor Attachment 1 shall be construed to prevent either Party from seeking and obtaining temporary equitable remedies, including temporary restraining orders. A request by a Party to a court or a regulatory authority for interim measures or equitable relief shall not be deemed a waiver of the obligation to comply with Attachment 1.

**16. Notices**

Any notices or other communications required or permitted to be given or delivered under this Agreement shall be in hard-copy writing (unless otherwise specifically provided herein) and shall be sufficiently given if delivered personally or delivered by prepaid overnight express service, certified mail, return receipt requested or by facsimile (followed by a hard copy delivered by U.S. mail) to the following (unless otherwise specifically required by this Agreement to be delivered to another representative or point of contact):

If to AT&T:

Reed Harrison  
Vice President, AT&T  
Room 4ED103  
One Oak Way  
Berkeley Heights, New Jersey 07922

and

Steve Davis  
Vice President, AT&T  
Room 3252J1  
295 North Maple Ave.  
Basking Ridge, New Jersey 07920

If to GTE: [ To be provided by GTE ]

Receiving Party's Title  
Company Name  
Street Address  
City, State Zip Code

Either Party may unilaterally change its designated representative and/or address for the receipt of notices by giving 7 days' prior written notice to the other Party in compliance with this Section. Any notice or other communication shall be deemed given when received.

**17. Confidentiality and Proprietary Information**

- 17.1 For the purposes of this Agreement, "Confidential Information" means confidential or proprietary technical or business Information given by the Discloser to the Recipient that is stamped, labelled, or otherwise designated as "Proprietary" or "Confidential" or that contains other words or symbols clearly indicating that the information is intended to be secure from public disclosure. "Confidential Information" also includes information that is provided or disclosed orally or visually if it is identified as proprietary or confidential when provided or disclosed and is summarized in a writing so marked and delivered within ten (10) days following such disclosure. Notwithstanding the foregoing, all orders for Local Services, Network Elements or Combinations placed by AT&T pursuant to this Agreement, and information that would constitute Customer Proprietary Network Information of AT&T customers pursuant to the Act and the rules and regulations of the FCC and Recorded Usage Data as described in Attachment 7, whether disclosed by AT&T to GTE or otherwise acquired by GTE in the course of the performance of this Agreement, shall be deemed Confidential Information of AT&T for all purposes under this Agreement whether or not specifically marked or designated as confidential or proprietary.
- 17.2 For a period of three (3) years from the receipt of Confidential Information from the Discloser, except as otherwise specified in this Agreement, the Recipient agrees (a) to use it only for the purpose of performing under this Agreement, (b) to hold it in confidence and disclose it to no one other than its employees or agents or consultants having a need to know for the purpose of performing under this Agreement, and (c) to safeguard it from unauthorized use or disclosure with at least the same degree of care with which the Recipient safeguards its own Confidential Information. Any agent or consultant must have executed a written agreement of non-disclosure and non-use comparable in scope to the terms of this Section 17.

- 17.3 The Recipient may make copies of Confidential Information only as reasonably necessary to perform its obligations under this Agreement. All such copies shall be subject to the same restrictions and protections as the original and shall bear the same copyright and proprietary rights notices as are contained on the original.
- 17.4 The Recipient agrees to return to the Discloser all Confidential Information received in tangible form from the Discloser, including any copies made by the Recipient, within thirty (30) days after a written request is delivered to the Recipient, or to destroy all such Confidential Information, except for Confidential Information that the Recipient reasonably requires to perform its obligations under this Agreement or as otherwise required by applicable law. If either Party loses or makes an unauthorized disclosure of the other Party's Confidential Information, it shall notify such other Party immediately and use reasonable efforts to retrieve the lost or wrongfully disclosed information.
- 17.5 The Recipient shall have no obligation to safeguard Confidential Information: (a) which was in the possession of the Recipient free of restriction prior to its receipt from the Discloser; (b) after it becomes publicly known or available through no breach of this Agreement by the Recipient; (c) after it is rightfully acquired by the Recipient free of restrictions on its disclosure; or (d) after it is independently developed by personnel of the Recipient to whom the Discloser's Confidential Information had not been previously disclosed. In addition, either Party shall have the right to disclose Confidential Information to any mediator, arbitrator, state or federal regulatory body, the Department of Justice or any court in the conduct of any mediation, arbitration or approval of this Agreement or in any proceedings concerning the provision of interLATA services by GTE that are or may be required by the Act, subject to the requirements concerning notice and other measures specified in the last sentence of this Subsection. Additionally, the Recipient may disclose Confidential Information if so required by law, a court of competent jurisdiction, or governmental or administrative agency, so long as the Discloser has been notified of the requirement promptly after the Recipient becomes aware of the requirement, and so long as the Recipient undertakes all lawful measures to avoid disclosing such information until Discloser has had reasonable time to seek a protective order and complies with any protective order that covers the Confidential Information to be disclosed.
- 17.6 Each party's obligations to safeguard Confidential Information disclosed prior to expiration or termination of this Agreement shall survive such expiration or termination in accordance with the terms of Subsection 17.2.
- 17.7 Except as otherwise expressly provided elsewhere in this Agreement, no license is hereby granted under any patent, trademark, or copyright, nor is any

such license implied, solely by virtue of the disclosure of any Confidential Information.

- 17.8 Each party agrees that the Discloser would be irreparably injured by a breach of this Agreement by the Recipient or its representatives and that the Discloser shall be entitled to seek equitable relief, including injunctive relief and specific performance, in the event of any breach of the provisions of this Agreement. Such remedies shall not be deemed to be the exclusive remedies for a breach of this Agreement, but shall be in addition to all other remedies available at law or in equity.

18. **Branding**

Services offered by AT&T that incorporate Network Elements or Combinations made available to AT&T pursuant to this Agreement, and Local Services that AT&T offers for resale shall, at AT&T's sole discretion, be branded exclusively as AT&T services, or otherwise, as AT&T shall determine. Except where otherwise agreed in the Attachments to this Agreement, or specified in a separate writing by AT&T, AT&T shall provide the exclusive interface to AT&T Customers in connection with the marketing or offering of AT&T services. In those instances where AT&T requires GTE personnel to interface directly with AT&T Customers, either orally in person or by telephone, or in writing, such personnel shall identify themselves as representing AT&T, and shall not identify themselves as representing GTE. All forms, business cards or other business materials furnished by GTE to AT&T shall bear no corporate name, logo, trademark or tradename other than AT&T's or such other brand as AT&T shall determine. In no event shall GTE personnel acting on behalf of AT&T pursuant to this Agreement provide information to AT&T customers about GTE products or services.

19. **Directory Listings Requirements**

- 19.1 GTE shall include AT&T Customers on a non-discriminatory basis in its telephone number and address directory listings ("Directory Listings"), under the following terms and conditions:
- 19.1.1 AT&T shall supply to GTE, on a regularly scheduled basis, all listing information for AT&T Customers who wish to be listed in the white pages of the GTE published directory for that subscriber area. Listings in the white pages directories will consist of names, addresses (including city and ZIP code) and telephone numbers. GTE shall employ AT&T's listing information for the production of GTE-published white and yellow page directories. GTE shall obtain AT&T's prior written approval for the use of AT&T customers' listings for any other purpose.

- 19.1.2 GTE shall provide, at no charge to AT&T, White Pages name, address and telephone number listings for each AT&T Customer. Where an AT&T Customer has two numbers for a line due to the implementation of interim Local Number Portability, the second number shall be considered part of the White Pages basic listing. GTE shall permit AT&T Customers the option of not having a published White Pages listing. GTE shall provide for each AT&T Customer who subscribes to business services (i) one Yellow Pages basic listing at no charge to AT&T and (ii) additional Yellow Pages basic listings at wholesale rates set forth in Part V of this Agreement. GTE shall provide monthly schedules (for a rolling twelve (12) month period) for Yellow Pages publications in all states requested by AT&T.
- 19.1.3 Yellow Pages advertising may be sold to AT&T Customers at AT&T's request and billed on AT&T's behalf by GTE pursuant to a separate agreement with GTE's advertising and publishing subsidiary. AT&T will take over all billing for Yellow Pages advertising by September 1997.
- 19.1.4 AT&T will supply GTE in accordance with the monthly schedules (for a twelve (12) month rolling period) provided by GTE with all required Customer mailing information, to enable GTE to perform its distribution responsibilities. GTE shall deliver Directory Listings in book form ("Telephone Directories") to AT&T Customers. Timing of such delivery and the determination of which Telephone Directories shall be delivered (by customer address, NPA/NXX or other criteria), and the number of Telephone Directories to be provided per customer, shall be provided under the same terms that GTE delivers Telephone Directories to its own local service customers. Upon directory publication, GTE will arrange for the distribution of the directory to AT&T's Customers in the directory coverage area at no charge. After directory publication and over the life of the directory, GTE will arrange for the distribution of the directory to new AT&T Customers who previously did not have dialtone and those AT&T Customers requesting replacement or additional directories. AT&T will pay GTE \$2.49 for each such secondary distribution.
- 19.1.5 GTE shall, at no charge to AT&T, make available recycling services for Telephone Directories to AT&T Customers under the same terms and conditions that GTE makes such services available to its own local service customers.
- 19.1.6 Notwithstanding anything to the contrary contained herein, GTE may terminate this Section 19 as to a specific GTE exchange in the event that GTE sells or otherwise transfers the exchange to an entity other than a GTE Affiliate. GTE shall provide AT&T with at least ninety (90) days' prior written notice of such termination, which shall be effective on the date specified in the notice. Notwithstanding termination of the Section 19 as to a specific

exchange, this Section 19 shall remain in full force and effect in the remaining exchanges.

- 19.1.7 Notwithstanding the termination of this Section 19, the Parties' obligations with respect to any directories whose annual publication cycle has begun prior to the effective date of termination shall survive such termination. For example, if a Party terminates this Section 19 effective as of June 30, 1997, the Parties' survival obligations shall apply as follows:

| Exchange | Beginning of<br>Publication Cycle | Expiration of<br>Obligations |
|----------|-----------------------------------|------------------------------|
| 1        | January 1, 1997                   | December 31, 1997            |
| 2        | June 1, 1997                      | May 31, 1998                 |
| 3        | August 1, 1997                    | June 30, 1998                |

a publication cycle begins the day following the listing activity close date for the current year's publication.

- 19.2 Directory Listing criteria shall be specified by GTE. GTE shall provide any changes to its Directory Listing Criteria thirty (30) days in advance of such charges becoming effective. The Directory Listing criteria shall include:
- 19.2.1 Classified heading information;
- 19.2.2 Rules for White Pages and Yellow Pages listings (e.g., eligibility for free Yellow Pages listing, space restrictions, unlisted and unpublished listings, abbreviated listings, foreign listings, and heading requirements);
- 19.2.3 Identification of Enhanced White Pages and Enhanced Yellow Pages listings available;
- 19.2.4 Publication schedules for White Pages and Yellow Pages;
- 19.2.5 Identification of which Telephone Directories are provided to which customers by customer address, NPA/NXX or other criteria;
- 19.2.6 Telephone Directory delivery schedules;
- 19.2.7 Restrictions, if any, on number of Telephone Directories provided at no charge to customer;
- 19.2.8 Processes and terms and conditions for obtaining foreign Telephone Directories from GTE; and

- 19.2.9 Geographic coverage areas of each Telephone (by municipality and NPA/NXX).]
- 19.3 GTE shall include, in the customer information section of each Telephone Directory, one full page of information about AT&T services, including addresses and telephone numbers for AT&T Customer service. The form and content of such customer information shall be provided by AT&T to GTE and shall be subject to GTE review and approval, which approval shall not be unreasonably withheld. AT&T agrees to pay a rate equal to (TBD) for the inclusion of this full page.

20. **Subscriber List Information**

- 20.1 GTE shall include in its master subscriber system database all Subscriber Listing Information for all AT&T Customers, including those with nonpublished and unlisted numbers, at no charge to AT&T.

GTE shall provide to AT&T, at AT&T's request, within thirty (30) days after the Effective Date, all published Subscriber List Information (including such information that resides in GTE's master subscriber system database) via electronic data transfer acceptable to AT&T, on the same terms and conditions and at the same rates that GTE provides its own Subscriber List information to other third parties. Changes to the Subscriber List Information shall be updated on a daily basis through the same electronic data transfer means used to transmit the initial List. Subscriber List Information provided shall indicate whether the customer is a residence or business customer.

- 20.2 GTE will not release Subscriber List Information ("SLI") that includes AT&T Customer information to third parties without AT&T's approval. AT&T shall inform GTE if it desires to have GTE provide the AT&T customer SLI to the third party, in which case, GTE shall provide the AT&T customer SLI at the same time as GTE provides the GTE customer SLI to the third party. GTE shall charge AT&T no more than the direct costs of compiling such information. AT&T shall be responsible for billing the third party.

21. **Busy Line Verification and Emergency Line Interrupt**

Each Party shall establish procedures whereby its operator assistance bureau will coordinate with the operator assistance bureau of the other Party to provide Busy Line Verification ("BLV") and Busy Line Verification Interrupt ("BLVI") services on calls between their respective end users. Each Party shall route BLV and BLVI inquiries over separate inward operator services trunks. Each Party's operator assistance bureau will only verify and/or interrupt the call and will not complete the call of the end user initiating the BLV or BLVI. Each Party shall charge the other for the BLV and BLVI

services on a bill and keep basis.

**22. Number Assignment**

- 22.1 GTE shall allocate Central Office Codes, i.e. NXXs, in a neutral manner at parity with itself in those LATAs where GTE is the number administrator. GTE shall not charge a fee for the allocation of NXXs to AT&T for any costs including, but not limited to, programming expenses incurred by GTE in their role as number administrator.
- 22.2 GTE shall process all AT&T NXX requests in a timely manner as per the ICCF Code Assignment Guidelines and will provide numbers in any NPA/NXX associated with a terminating line within the boundaries of an LSO, in those LATAs where GTE is the number administrator.
- 22.3 GTE, during the interim period, will maintain its current process of notifying public utility commissions and state regulatory bodies of plans for NPA splits and code relief.
- 22.4 GTE shall treat as confidential, and solely for the use in its role as Code Administrator and for no other purpose, any and all information received from AT&T regarding NPA/NXX forecasts. This information shall be used only for the purposes of code administration, e.g. NPA code relief studies.
- 22.5 GTE shall participate in the transition of its code administration responsibilities to a neutral third party and will notify AT&T in case there are not a sufficient amount of numbers to meet the forecast requirements of AT&T.
- 22.6 GTE shall provide AT&T with a file, or files, containing a street address/LSO cross reference indicating which LSO serves the cross referenced street address.

**23. Miscellaneous**

- 23.1 **Delegation or Assignment** - Any assignment by either Party of any right, obligation, or duty, in whole or in part, or of any interest, without the written consent of the other Party shall be void, except that either Party may assign all of its rights, and delegate its obligations, liabilities and duties under this Agreement, either in whole or in part, to any entity that is, or that was immediately preceding such assignment, an Affiliate of that Party without consent, but with written notification. The effectiveness of an assignment shall be conditioned upon the assignee's assumption of the rights, obligations, and duties of the assigning Party.

- 23.2 **Subcontracting** - GTE may not subcontract the performance of any obligation under this Agreement without the prior written consent of AT&T, which consent shall not be unreasonably withheld. If any obligation is performed through a subcontractor, GTE shall remain fully responsible for the performance of this Agreement in accordance with its terms, including any obligations it performs through subcontractors, and GTE shall be solely responsible for payments due its subcontractors. No contract, subcontract or other Agreement entered into by either Party with any third Party in connection with the provision of Local Services or Network Elements hereunder shall provide for any indemnity, guarantee or assumption of liability by, or other obligation of, the other Party to this Agreement with respect to such arrangement, except as consented to in writing by the other Party. No subcontractor shall be deemed a third party beneficiary for any purposes under this Agreement.
- 23.3 **Authority** - Each person whose signature appears on this Agreement represents and warrants that he or she has authority to bind the Party on whose behalf he or she has executed this Agreement.
- 23.4 **Binding Effect** - This Agreement shall be binding on and inure to the benefit of the respective successors and permitted assigns of the Parties.
- 23.5 **Nonexclusive Remedies** - Except as otherwise expressly provided in this Agreement, each of the remedies provided under this Agreement is cumulative and is in addition to any remedies that may be available at law or in equity.
- 23.6 **No Third-Party Beneficiaries** - Except as may be specifically set forth in this Agreement, this Agreement does not provide and shall not be construed to provide third parties with any remedy, claim, liability, reimbursement, cause of action, or other privilege.
- 23.7 **Referenced Documents** - Whenever any provision of this Agreement refers to a technical reference, technical publication, AT&T Practice, GTE Practice, any publication of telecommunications industry administrative or technical standards, or any other document specifically incorporated into this Agreement, it will be deemed to be a reference to the most recent version or edition (including any amendments, supplements, addenda, or successors) of such document that is in effect at the time of the execution of this Agreement, and will include the most recent version or edition (including any amendments, supplements, addenda, or successors) of each document incorporated by reference in such a technical reference, technical publication, AT&T Practice, GTE Practice, or publication of industry standards (unless AT&T elects otherwise). Should there be an inconsistency between or among publications

or standards, AT&T shall elect which requirement shall apply to the Local Services, Unbundled Elements, or Ancillary Functions ordered by AT&T.

- 23.8 **Regulatory Agency Control** - This Agreement shall at all times be subject to changes, modifications, orders, and rulings by the FCC and/or the applicable state utility regulatory commission to the extent the substance of this Agreement is or becomes subject to the jurisdiction of such agency. If this Agreement is subject to advance approval of a regulatory agency, this Agreement shall not become effective until five (5) Business Days after receipt by the Parties of written notice of such approval. "Business Day" shall mean Monday through Friday, except for holidays on which the U. S. Mail is not delivered.
- 23.9 **Governing Law** - The validity of this Agreement, the construction and enforcement of its terms, and the interpretation of the rights and duties of the Parties shall be governed by the laws of the State in which the Services are provided and shall be subject to the exclusive jurisdiction of the courts therein, except insofar as federal law may control any aspect of this Agreement, in which case federal law shall govern such aspect. The Parties submit to personal jurisdiction in Irving, Texas and Basking Ridge, New Jersey, and waive any and all objections to a Texas or New Jersey venue.
- 23.10 **Publicity and Advertising** - Any news release, public announcement, advertising, or any form of publicity pertaining to this Agreement, or the provision of Local Services, Unbundled Network Elements, Ancillary Functions or Interconnection Services pursuant to it, or association of the Parties with respect to provision of the services described in this Agreement shall be subject to prior written approval of both GTE and AT&T. Neither Party shall publish or use any advertising, sales promotions or other publicity materials that use the other Party's logo, trademarks or service marks without the prior written approval of the other party.
- 23.11 **Amendments or Waivers** - Except as otherwise provided in this Agreement, no amendment or waiver of any provision of this Agreement, and no consent to any default under this Agreement, shall be effective unless the same is in writing and signed by an officer of the Party against whom such amendment, waiver or consent is claimed. In addition, no course of dealing or failure of a Party strictly to enforce any term, right or condition of this Agreement shall be construed as a waiver of such term, right or condition. By entering into this Agreement, neither Party waives any right granted to it pursuant to the Act.
- 23.12 **Severability** - If any term, condition or provision of this Agreement is held to be invalid or unenforceable for any reason, such invalidity or unenforceability shall not invalidate the entire Agreement, unless such construction would be unreasonable. The Agreement shall be construed as if it did not contain the

invalid or unenforceable provision or provisions, and the rights and obligations of each Party shall be construed and enforced accordingly; provided, however, that in the event such invalid or unenforceable provision or provisions are essential elements of this Agreement and substantially impair the rights or obligations of either Party, the Parties shall promptly negotiate a replacement provision or provisions.

- 23.13 **Entire Agreement** - This Agreement, which shall include the Attachments, Appendices and other documents referenced herein, constitutes the entire Agreement between the Parties concerning the subject matter hereof and supersedes any prior agreements, representations, statements, negotiations, understandings, proposals or undertakings, oral or written, with respect to the subject matter expressly set forth herein.
- 23.14 **Survival of Obligations** - Any liabilities or obligations of a Party for acts or omissions prior to the cancellation or termination of this Agreement; any obligation of a Party under the provisions regarding indemnification, Confidential Information, limitations on liability, and any other provisions of this Agreement which, by their terms, are contemplated to survive (or to be performed after) termination of this Agreement, shall survive cancellation or termination thereof.
- 23.15 **Executed in Counterparts** - This Agreement may be executed in any number of counterparts, each of which shall be deemed an original; but such counterparts shall together constitute one and the same instrument.
- 23.16 **Headings of No Force or Effect** - The headings of Articles and Sections of this Agreement are for convenience of reference only, and shall in no way define, modify or restrict the meaning or interpretation of the terms or provisions of this Agreement.
- 23.17 **Subsequent Law** - The terms and conditions of this Agreement shall be subject to any and all applicable laws, rules, regulations or guidelines that subsequently may be prescribed by any federal, state or local governmental authority. To the extent required by any such subsequently prescribed law, rule, regulation or guideline, the parties agree to modify, in writing, the affected term(s) and condition(s) of this Agreement to bring them into compliance with such law, rule, regulation or guideline.
- 23.18 **Trademarks and Trade Names** - Except as specifically set out in this Agreement, nothing in this Agreement shall grant, suggest, or imply any authority for one Party to use the name, trademarks, service marks, or trade names of the other Party for any purpose whatsoever.

**PART I LOCAL SERVICES RESALE****24. Telecommunications Services Provided for Resale**

At the request of AT&T, and pursuant to the requirements of the Act, GTE will make available to AT&T for resale any Telecommunications Service that GTE currently provides, or may offer hereafter. GTE shall also provide Service Support Functions as set forth in this Part. The Telecommunications Services and Service Support Functions provided by GTE pursuant to this Agreement are collectively referred to as "Local Service." All services or offerings of GTE which are to be offered for resale pursuant to the Act are subject to the terms herein, even though they are not specifically enumerated or described.

**25. General Terms and Conditions for Resale****25.1 Ordering**

The Parties shall apply the principles set forth in 47 C.F.R. §64.1100 to the process for end-user selection of a primary local exchange carrier. Neither Party shall require a disconnect order, letter of authorization or other writing from a customer, or another LEC, in order to process an order for Local Service. Each Party shall transfer the customer's service features and functionalities "as is" to the other Party when requested by a customer. Each Party will provide the capability for customers to retain their current phone number in the event that they change local service providers, allowing them to retain all existing features and functionalities.

GTE shall include an AT&T Customer's listing in its Directory Assistance database as part of the Local Service Request ("LSR") process. GTE will honor AT&T Customer's preferences for listing status, including non-published and unlisted, as noted on the LSR or similar form and will ensure that the listing appears as AT&T requested in the GTE database which is used to perform Directory Assistance functions.

**25.2 Pricing**

The prices charged to AT&T for Local Service are set forth in Part IV of this Agreement.

**25.3 No Restrictions on Resale**

AT&T may resell Local Services to provide Telecommunications Services to any and all classes of end-users, except for services provided pursuant Voluntary Federal Customer Financial Assistance Programs and Link-Up services which AT&T may only resell to those customers who are eligible for

such services. GTE will not prohibit, nor impose unreasonable or discriminatory conditions or limitations on the resale of its Telecommunications Services.

**25.4 Dialing and Service Parity; Number Portability**

25.4.1 GTE shall ensure that all AT&T Customers experience the same dialing parity as similarly-situated GTE customers, such that, for all call types: (i) an AT&T Customer is not required to dial any greater number of digits than a similarly-situated GTE customer; (ii) the AT&T Customer may retain its local telephone number with no loss of features and functionalities; and (iii) the post-dial delay (time elapsed between the last digit dialed and the first network response), call completion rate and transmission quality experienced by an AT&T Customer is at least equal in quality to that experienced by a similarly-situated GTE customer.

25.4.2 GTE shall ensure that all AT&T Customers experience the same service levels as similarly situated GTE customers, and that there is no loss of features or functionalities including, but not limited to: same dial tone and ringing; same capability for either dial pulse or touch tone recognition; flat and measured services; speech recognition as available; same extended local free calling area; 1+ IntraLATA toll calling; InterLATA toll calling and international calling; 500, 700, 800, 900, 976 and Dial Around (10xxx) Services; restricted collect and third number billing; all available speeds of analogue and digital private lines; off-premise extensions; CENTRANET and ISDN.

**25.5 Changes in Retail Service**

GTE will notify AT&T of any changes in the terms and conditions under which it offers telecommunications services at retail to subscribers who are not telecommunications service providers or carriers, including, but not limited to, the introduction of any new features, functions, services or promotions or the discontinuance of current features or services, at least forty-five (45) days prior to the effective date of such change.

**26. Requirements for Specific Services**

**26.1 CENTRANET Requirements**

26.1.1 At AT&T's option, AT&T may purchase the entire set of CENTRANET features or a subset of any one or any combination of such features available feature packages. The CENTRANET Service provided for resale will meet the following requirements:

- 26.1.1.1 All features and functions of CENTRANET Service, whether offered under tariff or otherwise, shall be available to AT&T for resale, without any geographic or customer class restrictions.
- 26.1.1.2 GTE shall provide to AT&T a list of all CENTRANET features and functions offered by GTE within ten (10) days of the Effective Date, and shall provide updates to said list forty-five (45) days prior to the effective date of the new features.
- 26.1.1.3 All service levels and features of CENTRANET Service provided by GTE for resale by AT&T shall meet the service parity requirements set forth in this Part.
- 26.1.1.4 AT&T may aggregate the CENTRANET local exchange and IntraLATA traffic usage of AT&T Customers to qualify for volume discounts on the basis of such aggregated usage.
- 26.1.1.5 AT&T may aggregate multiple AT&T Customers on dedicated access facilities. AT&T shall pay the rates for DS-1 termination set forth in Part IV of this Agreement for such service.
- 26.1.1.6 AT&T shall pay a one-time, non-recurring charge, as set forth in Part IV of this Agreement to pay for the cost of suppressing the need for AT&T Customers to dial "9" when placing calls outside the CENTRANET System.
- 26.1.1.7 AT&T may use remote call forwarding in conjunction with CENTRANET Service to provide service to AT&T Local Service Customers residing outside of the geographic territory in which the GTE provides local exchange service.
- 26.1.1.8 AT&T may purchase any and all levels of CENTRANET Service (e.g., "gold", "silver" or "platinum") for resale, without restriction on the minimum or maximum number of lines that may be purchased for any one level of service.
- 26.1.1.9 GTE shall make available to AT&T for resale, at no additional charge, intercom calling among all AT&T Customers who utilize resold CENTRANET Service subject to applicable restrictions, such as limits on "business groups" and also subject to technical switch limitations.
- 26.1.1.10 AT&T may utilize Automatic Route Selection ("ARS") to provision access.

## 26.2 CLASS/LASS and Custom Features Requirements

AT&T may purchase the entire set of CLASS/LASS and Custom features and functions, or a subset of any one or any combination of such features, on a customer-specific basis, without restriction on the minimum or maximum number of lines or features that may be purchased for any one level of

service, provided such CLASS/LASS and Custom features are available to GTE customers served by the same GTE Central Office. GTE shall provide to AT&T a list of all such CLASS/LASS and Custom features and functions within ten (10) business days of the Effective Date and shall provide updates to such list when new features and functions become available. GTE shall provide to AT&T a list of all services, features, and products including a definition of the service and how such services interact with each other. GTE shall provide features and services by street address guide and by LSO CLLI code. All features shall be at least at parity with the GTE service offering.

### **26.3 Custom Calling**

GTE shall provide AT&T with the following custom calling features for AT&T Customers served by those GTE Central Offices in which these features are provided to GTE customers: Call Forward; Call Forward/Busy; Call Forward/No Answer; Call Forward Combination Busy/No Answer; Remote Access to Call Forward; Call Forward Select; Three Way Calling; Speed Dial 8 and 30; Call Waiting; Call Hold and all other custom calling features that GTE makes available to GTE customers.

### **26.4 Voluntary Federal Customer Financial Assistance Programs**

Local Services provided to low-income subscribers, pursuant to requirements established by the appropriate state or federal regulatory body, include programs such as Voluntary Federal Customer Financial Assistance Programs, such as Lifeline, and Link-Up America (collectively referred to as "Voluntary Federal Customer Financial Assistance Programs") and Directory Assistance - Exempt. When a GTE customer eligible for these services chooses to obtain Local Service from AT&T, GTE shall forward all information regarding such customer's eligibility to participate in such programs including any applicable certification procedures to AT&T, in electronic format in accordance with the procedures set forth herein.

### **26.5 Intercept and Transfer Service**

GTE shall provide intercept and transfer service to AT&T for AT&T Customers on the same basis as such service is available to similarly situated GTE customers. When an end-user customer transfers service from GTE to AT&T, or from AT&T to GTE, and does not retain its original telephone number, the Party formerly providing service to the end-user will provide, upon request, a referral announcement on the original telephone number. The announcement will provide the new number of the customer.

### **26.6 E911/911 Services**

GTE shall provide to AT&T, for AT&T Customers, E911/911 call routing to the appropriate PSAP. GTE shall provide and validate AT&T Customer

information to the PSAP. GTE shall use its service order process to update and maintain, on the same schedule that it uses for its end users, the AT&T Customer service information in the ALI/DMS (Automatic Location Identification/Location Information database) used to support E911/911 services, pursuant to National Emergency Management Agency (NEMA) standards.

#### **26.7 Telephone Relay Service**

Where GTE provides to speech and hearing-impaired callers a service that enables callers to type a message into a telephone set equipped with a keypad and message screen and to have a live operator read the message to a recipient and to type message recipient's response to the speech or hearing-impaired caller ("Telephone Relay Service"), GTE shall make such service available to AT&T at no additional charge, for use by AT&T Customers who are speech or hearing-impaired. If GTE maintains a record of customers who qualify under any applicable law for Telephone Relay Service, GTE shall make such data available to AT&T as it pertains to AT&T Customers.

#### **26.8 Voice Mail Services**

GTE shall provide the following features capability for Voice Mail Services: the SMDI-E interface; the Message Waiting Indicator; the Call Forward on Busy/Don't Answer feature.

#### **27. Advanced Intelligent Network**

27.1 AT&T may purchase the entire set of Advanced Intelligent Network ("AIN") features or functions, or a subset of any one or any combination of such features or functions, on a customer-specific basis. The AIN services provided by GTE to AT&T for resale shall meet the following requirements:

27.1.1 AIN, whether offered under tariff or otherwise, shall be available to AT&T for resale, without any geographic restrictions.

27.1.2 GTE shall provide full functionality access to AT&T on behalf of AT&T Customers, including the Service Control Point Database and Intelligent Functions.

27.1.3 All service levels, features and function components of AIN provided by GTE and offered for resale by AT&T shall meet the service parity standards and other performance standards agreed between AT&T and GTE under Section 11.

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**ATTACHMENT 1****ALTERNATIVE DISPUTE RESOLUTION****TABLE OF CONTENTS**

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Appendix 1      Procedures for Resolution of Service-Affecting Disputes

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## **ALTERNATIVE DISPUTE RESOLUTION**

### **1. Purpose**

This Attachment 1 is intended to provide for the expeditious, economical, and equitable resolution of disputes between GTE and AT&T arising under this Agreement, and to do so in a manner that permits uninterrupted, high quality services to be furnished to each Party's customers.

### **2. Exclusive Remedy**

- 2.1 Negotiation and arbitration under the procedures provided herein shall be the exclusive remedy for all disputes between GTE and AT&T arising out of this Agreement or its breach. GTE and AT&T agree not to resort to any court, agency, or private group with respect to such disputes except in accordance with this Attachment.
- 2.1.1 If, for any reason, certain claims or disputes are deemed to be non-arbitrable, the non-arbitrability of those claims or disputes shall in no way affect the arbitrability of any other claims or disputes.
- 2.1.2 If, for any reason, the FCC or any other federal or state regulatory agency exercises jurisdiction over and decides any dispute related to this Agreement or to any GTE Tariff and, as a result, a claim is adjudicated in both an agency proceeding and an arbitration proceeding under this Attachment 1, the following provisions shall apply:
- 2.1.2.1 To the extent required by law, the agency ruling shall be binding upon the parties for the limited purposes of regulation within the jurisdiction and authority of such agency.
- 2.1.2.2 The arbitration ruling rendered pursuant to this Attachment 1 shall be binding upon the parties for purposes of establishing their respective contractual rights and obligations under this Agreement, and for all other purposes not expressly precluded by such agency ruling.
- 2.1.3 Nothing in this Attachment 1 shall limit the right of either GTE or AT&T to obtain provisional remedies (including injunctive relief) from a court before, during or after the pendency of any arbitration proceeding brought pursuant to

this Attachment 1. However, once a decision is reached by the Arbitrator, such decision shall supersede any provisional remedy.

3. **Informal Resolution of Disputes**

- 3.1 Prior to initiating an arbitration pursuant to the American Arbitration Association ("AAA") rules, as described below, the Parties to this Agreement shall submit any dispute between GTE and AT&T for resolution to an Inter-Company Review Board consisting of one representative from AT&T at the Director-or-above level and one representative from GTE at the Vice-President-or-above (or at such lower level as each Party may designate). The dispute will be submitted by either Party giving written notice to the other Party, consistent with the notice requirements of this Agreement, that the Party intends to initiate the Informal Resolution of Disputes process. The notice shall define the dispute to be resolved. The Parties may use a mediator to help informally settle a dispute.

The initial representations of each Party shall be as follows:

**AT&T**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_  
Telecopier: \_\_\_\_\_

**GTE**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_  
Telecopier: \_\_\_\_\_

A representative shall be entitled to appoint a delegee to act in his or her place as a Party's representative on the Inter-Company Review Board for any specific dispute brought before the Board.

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- 3.2 The Parties may enter into a settlement of any dispute at any time. The Settlement Agreement shall be in writing, and shall identify how the Arbitrator's or mediator's fee for the particular proceeding, if any, will be apportioned.
- 3.3 At no time, for any purposes, may a Party introduce into evidence or inform the Arbitrator appointed under Section 6 below of any statement or other action of a Party in connection with negotiations between the Parties pursuant to the Informal Resolution of Disputes provision of this Attachment 1.
- 3.4 By mutual agreement, the Parties may agree to submit a dispute to mediation prior to initiating arbitration.

**4. Initiation of an Arbitration**

If the Inter-Company Review Board is unable to resolve a non-service affecting dispute within 30 days (or such longer period as agreed to in writing by the Parties) of such submission, and the Parties have not otherwise entered into a settlement of their dispute, the Parties shall initiate an arbitration in accordance with the AAA rules. Any dispute over a matter which directly affects the ability of a Party to provide high quality services to its customers will be governed by the procedures described in Appendix 1 to this Attachment 1.

**5. Governing Rules for Arbitration**

The rules set forth below and the rules of Commercial Arbitrations of the AAA shall govern all arbitration proceedings initiated pursuant to this Attachment; however, such arbitration proceedings shall not be conducted under the auspices of the AAA unless the Parties mutually agree. Where any of the rules set forth herein conflict with the rules of the AAA, the rules set forth in this Attachment shall prevail.

**6. Appointment and Removal of Arbitrator**

- 6.1 A sole Arbitrator (the "Arbitrator") will preside over each dispute submitted for arbitration under this Agreement. Insofar as common issues arise under a dispute concerning any Interconnection, Services and Network Elements Agreement signed between an AT&T Affiliate and a GTE Affiliate, the Parties agree that such common issues will be combined and submitted to the Arbitrator for resolution.
- 6.2 The Parties shall appoint an Arbitrator who will serve for the term of this Agreement, unless removed pursuant to Section 6.4 of this Attachment 1. The appointment will be made by mutual agreement in writing within thirty (30) days after the Effective Date (or such longer period as the Parties may mutually agree to in writing). The Parties shall select an Arbitrator that has experience in the field of telecommunications.
- 6.3 In the event that multiple arbitration proceedings are in progress simultaneously under this Agreement, the Arbitrator may request, in writing, the appointment of one or more additional Arbitrators. The Parties shall appoint such additional Arbitrators within thirty (30) days after receipt of such request (or within such longer period as the Arbitrator's request specifies). The Arbitrator may assign arbitration proceedings to the additional Arbitrators in his or her sole discretion, provided that each such proceeding shall be presided over by a single Arbitrator. Additional Arbitrators shall have all the powers and responsibilities of the Arbitrator in proceedings over which they preside, but shall serve only for the duration of the disputes for which they were retained.
- 6.4 In the event The Parties may, by mutual written agreement, remove an Arbitrator at any time, and shall provide prompt written notice of removal to such Arbitrator. Notwithstanding the foregoing, any Arbitrator may be removed at any time unilaterally by either Party as permitted in the rules of the AAA. Furthermore, upon (30) days' prior written notice to the Arbitrator and to the other Party, a Party may remove an Arbitrator with respect to future disputes which have not been submitted to arbitration in accordance with the requirements of Section 4 of this Attachment 1, as of the date of such notice.
- 6.5 In the event that an Arbitrator resigns, is removed pursuant to Section 6.4 of this Attachment 1, or becomes unable to discharge his or her duties, the Parties shall, by mutual written Agreement, appoint a replacement Arbitrator within thirty (30) days after such resignation, removal, or inability, unless a

different time period is mutually agreed upon in writing by the Parties. Any matters pending before the Arbitrator at the time he or she resigns, is removed, or becomes unable to discharge his or her duties, will be assigned to the replacement Arbitrator as soon as the replacement Arbitrator is appointed.

- 6.6 In the event that the Parties do not appoint an Arbitrator within the time limit set forth in Section 6.2 of this Attachment 1, an additional Arbitrator within the time limit set forth in Section 6.3 of this Attachment 1, or a replacement Arbitrator within the time limit set forth in Section 6.5 of this Attachment 1, either Party may apply to AAA for appointment of such Arbitrator. Prior to filing an application with the AAA, the Party filing such application shall provide ten (10) days' prior written notice to the other Party to this Agreement.

7. **Duties and Powers of the Arbitrator**

- 7.1 The Arbitrator shall receive complaints and other permitted pleadings, oversee discovery, administer oaths and subpoena witnesses pursuant to the United States Arbitration Act, hold hearings, issue decisions, and maintain a record of proceedings. The Arbitrator shall have the power to award any remedy or relief that a court with jurisdiction over this Agreement could order or grant, including, without limitation, the awarding of damages, pre-judgment interest, specific performance of any obligation created under the Agreement, issuance of an injunction, or imposition of sanctions for abuse or frustration of the arbitration process, except that the Arbitrator may not award punitive damages or any remedy rendered unavailable to the Parties pursuant to Section 10.3 of the General Terms and Conditions of this Agreement.
- 7.2 The Arbitrator shall not have the authority to limit, expand, or otherwise modify the terms of this Agreement.

8. **Discovery**

GTE and AT&T shall attempt, in good faith, to agree on a plan for document discovery. Should they fail to agree, either GTE or AT&T may request a joint meeting or conference call with the Arbitrator. The Arbitrator shall resolve any disputes between GTE and AT&T, and such resolution with respect to the scope, manner, and timing of discovery shall be final and binding.

**9. Privileges**

Although conformity to certain legal rules of evidence may not be necessary in connection with arbitrations initiated pursuant to this Attachment, the Arbitrator shall, in all cases, apply the attorney-client privilege and the work product immunity doctrines.

**10. Location of Hearing**

Unless both Parties agree otherwise, any hearings shall take place in San Francisco, California.

**11. Decision**

11.1 Except as provided below, the Arbitrator's decision and award shall be final and binding, and shall be in writing unless the Parties mutually agree to waive the requirement of a written opinion. Judgment upon the award rendered by the Arbitrator may be entered in any court having jurisdiction thereof. Either Party may apply to the United States District Court for the district in which the hearing occurred for an order enforcing the decision.

11.2 A decision of the Arbitrator shall not be final in the following situations:

a) a Party appeals the decision of the Commission or FCC, and the matter is within the jurisdiction of the Commission or FCC, provided that the agency agrees to hear the matter;

b) the dispute concerns the misappropriation or use of intellectual property rights of a Party, including, but not limited to, the use of the trademark, tradename, trade dress or service mark of a Party, and the decision appealed by a Party to a federal or state court with jurisdiction over the dispute.

11.3 Each Party agrees that any permitted appeal must be commenced within thirty (30) days after the Arbitrator's decision in the arbitration proceedings is issued. In the event of an appeal, a Party must comply with the results of the arbitration process during the appeal process.

**12. Fees**

12.1 The Arbitrator's fees and expenses that are directly related to a particular proceeding shall be paid by the losing Party. In cases in which the Arbitrator determines that neither Party has, in some material respect, completely prevailed or lost in a proceeding, the Arbitrator shall, in his or her discretion, apportion expenses to reflect the relative success of each Party. Those fees and expenses not directly related to a particular proceeding shall be shared equally. In accordance with Section 3.2. of this Attachment 1, in the event that the Parties settle a dispute before the Arbitrator reaches a decision with respect to that dispute, the Settlement Agreement must specify how the Arbitrator's fees for the particular proceeding will be apportioned.

12.2 In an action to enforce or confirm a decision of the Arbitrator, the prevailing Party shall be entitled to its reasonable attorneys' fees, and costs, consistent with the local rules of the district in which the suit could have been brought.

**13. Confidentiality**

13.1 GTE, AT&T, and the Arbitrator will treat the arbitration proceeding, including the hearings and conferences, discovery, or other related events, as confidential, except as necessary in connection with a judicial challenge to, or enforcement of, an award, or unless otherwise required by an order or lawful process of a court or governmental body.

13.2 In order to maintain the privacy of all arbitration conferences and hearings, the Arbitrator shall have the power to require the exclusion of any person, other than a Party, counsel thereto, or other essential persons.

13.3 To the extent that any information or materials disclosed in the course of an arbitration proceeding contains proprietary or confidential Information of either Party, it shall be safeguarded in accordance with Section 16 of this Agreement. However, nothing in Section 16 of this Agreement shall be construed to prevent either Party from disclosing the other Party's Information to the Arbitrator in connection with or in anticipation of an arbitration proceeding. In addition, the Arbitrator may issue orders to protect the confidentiality of proprietary information, trade secrets, or other sensitive information.

**14. Service of Process**

- 14.1 Service may be made by submitting one copy of all pleadings and attachments and any other documents requiring service to each Party and one copy to the Arbitrator. Service shall be deemed made (i) upon receipt if delivered by hand; (ii) after three (3) business days if sent by first class certified U.S. mail; (iii) the next business day if sent by overnight courier service; (iv) upon confirmed receipt if transmitted by facsimile. If service is by facsimile, a copy shall be sent the same day by hand delivery, first class U.S. mail, or overnight courier service.
- 14.2 Service by AT&T to GTE and by GTE to AT&T at the address designated for delivery of notices in this Agreement shall be deemed to be service to GTE or AT&T, respectively. The initial address for delivery of notices is specified in Subsection 3 above.

**Appendix I to Attachment 1****ALTERNATIVE DISPUTE RESOLUTION****Procedure for Resolution of Service-Affecting Disputes****1. Purpose.**

This Appendix 1 describes the procedures for an expedited resolution of disputes between GTE and AT&T arising under this Agreement which directly affect the ability of a Party to provide uninterrupted, high quality services to its customers and which cannot be resolved using the procedures for informal resolution of disputes contained in Attachment 1 to the Agreement.

Except as specifically provided in this Appendix 1 to Attachment 1, the provisions of Attachment 1 shall apply.

**2. Initiation of an Arbitration.**

a) If the Inter-Company Review Board is unable to resolve a service affecting dispute within two (2) business days (or such longer period as agreed to in writing by the Parties) of such submission, and the Parties have not otherwise entered into a settlement of their dispute, a Party may initiate an arbitration in accordance with the requirements of this Appendix 1 to Attachment 1. However, in the sole discretion of the Party which submitted the dispute to the Inter-Company Review Board, the dispute may be arbitrated in accordance with the general procedures described in Attachment 1 rather than the expedited procedures of this Appendix 1 to Attachment 1.

b) A proceeding for arbitration will be commenced by a Party ("Complaining Party") filing a complaint with the Arbitrator and simultaneously serving a copy on the other Party ("Complaint").

c) Each Complaint will concern only the claims relating to an act or failure to act (or series of related acts or failures to act) of a Party which affect the Complaining Party's ability to offer a specific service (or group or related services) to its customers.

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A Complaint may be in letter or memorandum form and must specifically describe the action or inaction of a Party in dispute and identify with particularity how the complaining Party's service to its customers is affected.

3. Response to Complaint.

A response to the Complaint must be filed within five (5) business days after service of the Complaint.

4. Reply to Complaint.

A reply is permitted to be filed by the Complaining Party within three (3) business days of service of the response. The reply must be limited to those matters raised in the response.

5. Discovery.

The Parties shall cooperate on discovery matters as provided in Section 8 of Attachment 1, but following expedited procedures.

6. Hearing.

- a) The Arbitrator will schedule a hearing on the Complaint to take place within twenty (20) business days after service of the Complaint. However, if mutually agreed to by the parties, a hearing may be waived and the decision of the Arbitrator will be based upon the papers filed by the Parties.
- b) The hearing will be limited to four (4) days, with each Party allocated no more than two (2) days, including cross examination by the other Party, to present its evidence and arguments. For extraordinary reasons, including the need for extensive cross-examination, the Arbitrator may allocate more time for the hearing.

In order to focus the issues for purposes of the hearing, to present initial views concerning the issues, and to facilitate the presentation of evidence, the Arbitrator has the discretion to conduct a telephone prehearing conference at a mutually convenient time, but in no event later than three (3) days prior to any scheduled hearing.

Each Party may introduce evidence and call witnesses it has previously identified in its witness and exhibit lists. The witness and exhibit lists must be furnished to the other Party at least three (3) days prior to commencement of the hearing. The witness list will disclose the substance of each witness' expected testimony. The exhibit list will identify by name (author and recipient), date, title and any other identifying characteristics the exhibits to be used at the arbitration. Testimony from witnesses not listed on the witness list or exhibits not listed on the exhibit list may not be presented in the hearing.

- c) The parties will make reasonable efforts to stipulate to undisputed facts prior to the date of the hearing.
- d) Witnesses will testify under oath and a complete transcript of the proceeding, together with all pleadings and exhibits, shall be maintained by the Arbitrator.

7. Decision.

- a) The Arbitrator will issue and serve his or her decision on the Parties within five (5) business days of the close of the hearing or receipt of the hearing transcript, whichever is later.
- b) The Parties agree to take the actions necessary to implement the decision of the Arbitrator immediately upon receipt of the decision.

**ATTACHMENT 2****SERVICE DESCRIPTION: UNBUNDLED NETWORK ELEMENTS****TABLE OF CONTENTS**

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**SERVICE DESCRIPTION: UNBUNDLED NETWORK ELEMENTS****1. Introduction**

This Attachment sets forth the descriptions and requirements for unbundled network elements that GTE agrees to offer to AT&T under this Agreement.

**2. Loop Distribution**

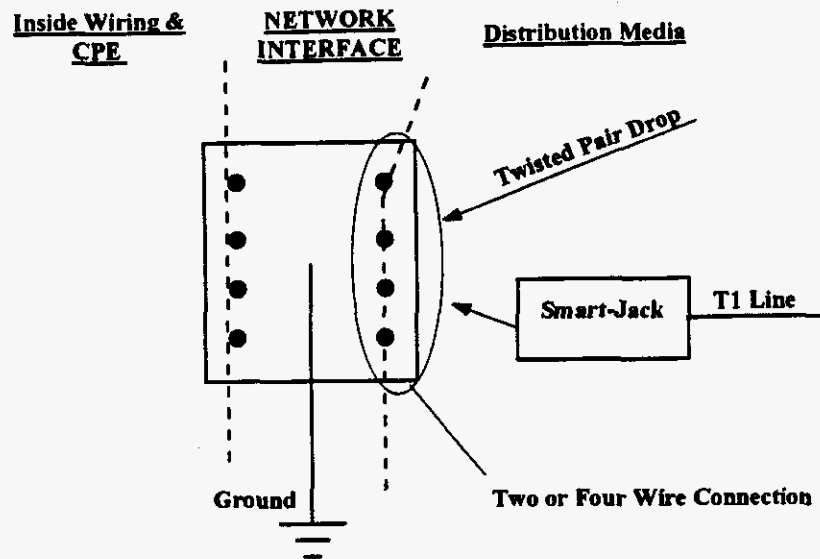
Loop Distribution is a Network Element that is composed of two distinct component parts: a Network Interface Device and Distribution Media. Each component part is defined in detail below.

**2.1 Network Interface Device****2.1.1 Definition:**

2.1.1.1 The Network Interface Device (NID) is a single-line termination device or that portion of a multiple-line termination device required to terminate a single line or circuit. The fundamental function of the NID is to establish the official network demarcation point between a carrier and its end-user customer. The NID features two independent chambers or divisions which separate the service provider's network from the customer's inside wiring. Each chamber or division contains the appropriate connection points or posts to which the service provider, and the end-user customer each make their connections. The NID provides a protective ground connection, and is capable of terminating cables such as twisted pair cable.

2.1.1.2 With respect to multiple-line termination devices, AT&T shall specify the quantity of NIDs it requires within such device.

2.1.1.3 Figure 1 shows a schematic of a NID.



**Figure 1 - Network Interface Device**

## 2.1.2 Technical Requirements

- 2.1.2.1 The Network Interface Device shall provide a clean, accessible point of connection for the inside wiring and for the Distribution Media and shall maintain a connection to ground that meets the requirements set forth below.
- 2.1.2.2 The NID shall be capable of transferring electrical analog or digital signals between the customer's inside wiring and the Distribution Media.
- 2.1.2.3 All NID posts or connecting points shall be in place, secure, usable and free of any rust or corrosion. The protective ground connection shall exist and be properly installed. The ground wire will also be free of rust or corrosion and have continuity relative to ground.
- 2.1.2.4 The NID shall be capable of withstanding all normal local environmental variations.
- 2.1.2.5 Where the NID is not located in a larger, secure cabinet or closet, the NID shall be protected from physical vandalism. The NID shall be

physically accessible to AT&T designated personnel and GTE will identify the cable pair used for the particular service which will be replaced by AT&T. In cases where entrance to the customer premises is required to give access to the NID, AT&T shall obtain entrance permission directly from the customer.

- 2.1.2.6 GTE shall offer the NID together with, and separately from the Distribution Media component of Loop Distribution.

### 2.1.3 Interface Requirements

- 2.1.3.1 The NID shall be the interface to customers' premises wiring for alternative loop technologies.

- 2.1.3.2 GTE shall permit AT&T to remove any existing terminations to the NID and replace them with terminations designated by AT&T. Neither party will remove the ground wire. GTE shall not remove or alter customer inside wiring.

- 2.1.3.3 The NID shall be equal to or better than all of the requirements for NIDs set forth in the following technical references:

- 2.1.3.3.1 Bellcore Technical Advisory TA-TSY-000120 "Customer Premises or Network Ground Wire";
- 2.1.3.3.2 Bellcore Generic Requirement GR-49-CORE "Generic Requirements for Outdoor Telephone Network Interface Devices";
- 2.1.3.3.3 Bellcore Technical Requirement TR-NWT-00239 "Indoor Telephone Network Interfaces";
- 2.1.3.3.4 Bellcore Technical Requirement TR-NWT-000937 "Generic Requirements for Outdoor and Indoor Building Entrance"; and,
- 2.1.3.3.5 Bellcore Technical Requirement TR-NWT-000133 "Generic Requirements for Network Inside Wiring."

## 2.2 Distribution Media

### 2.2.1 Definition:

- 2.2.1.1 Distribution Media provides connectivity between the NID component of Loop Distribution and the terminal block on the customer-side of a

Feeder Distribution Interface (FDI). The FDI is a device that terminates the Distribution Media and the Loop Feeder, and cross-connects them in order to provide a continuous transmission path between the NID and a telephone company central office. For loop plant that contains a Loop Concentrator/Multiplexer, the Distribution Media may terminate at the FDI (if one exists), or at a termination and cross-connect field associated with the Loop Concentrator/Multiplexer. This termination and cross-connect field may be in the form of an outside plant distribution closure, remote terminal or fiber node, or an underground vault.

2.2.1.2 The Distribution Media may be copper twisted pair, coax cable, or single or multi-mode fiber optic cable. A combination that includes two or more of these media is also possible. In certain cases, AT&T shall require a copper twisted pair Distribution Media even in instances where the Distribution Media for services that GTE offers is other than a copper facility.

## 2.2.2 Requirements for All Distribution Media

2.2.2.1 Distribution Media shall be capable of transmitting signals for the following services (as needed by AT&T to provide end-to-end service capability to its customer):

2.2.2.1.1 2-wire voice grade basic telephone services;

2.2.2.1.2 2-wire ISDN;

2.2.2.1.3 2-wire CENTRANET;

2.2.2.1.4 2 and 4-wire PBX lines or trunks;

2.2.2.1.5 2 and 4-wire voice grade private lines and foreign exchange lines;

2.2.2.1.6 4-wire digital data (2.4Kbps through 64Kbps and n times 64Kbps (where  $n \leq 24$ ); and

2.2.2.1.7 4-wire DS1 (switched or private line).

2.2.2.2 Distribution Media shall transmit all signaling messages or tones. Where the Distribution Media includes any active elements that terminate any of the signaling messages or tones, these messages or tones shall be reproduced by the Distribution Media at the interfaces to an adjacent Network Element in a format that maintains the integrity of the signaling messages or tones.

- 2.2.2.3 Distribution Media shall support functions associated with provisioning, maintenance and testing of the Distribution Media itself, as well as provide necessary access to provisioning, maintenance and testing functions for Network Elements to which it is associated.
- 2.2.2.4 Distribution Media shall provide performance monitoring of the Distribution Media itself, as well as provide necessary access for performance monitoring for Network Elements to which it is associated.
- 2.2.2.5 Distribution Media shall be equal to or better than all of the applicable requirements set forth in the following technical references:
  - 2.2.2.5.1 Bellcore TR-TSY-000057, "Functional Criteria for Digital Loop Carrier Systems"; and,
  - 2.2.2.5.2 Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines."
- 2.2.2.6 GTE shall provide AT&T with physical access to, and the right to connect to, the FDI.
- 2.2.2.7 GTE shall offer Distribution Media together with, and separately from the NID component of Loop Distribution.
- 2.2.3 **Additional Requirements for Special Copper Distribution Media**

In addition to Distribution Media that supports the requirements in Section 2.2.2 (above), AT&T may designate Distribution Media to be copper twisted pair which are unfettered by any intervening equipment (e.g., filters, load coils, range extenders) so that AT&T can use these loops for a variety of services by attaching appropriate terminal equipment at the ends.
- 2.2.4 **Additional Requirements for Fiber Distribution Media**

Fiber optic cable Distribution Media shall be capable of transmitting signals for the following services in addition to the ones under Section 2.2.2.1 above:

  - 2.2.4.1 DS3 rate private line service;
  - 2.2.4.2 Optical SONET OCn rate private lines (where n is defined in the technical reference in Section 3.2.4.4 and
  - 2.2.4.3 Analog Radio Frequency based services (e.g., Cable Television (CATV)

**2.2.5 Additional Requirements for Coaxial Cable Distribution Media**

Coaxial cable (coax) Distribution Media shall be capable of transmitting signals for the following services in addition to the ones under Section 2.2.2.1 above:

2.2.5.1 Broadband data, either one way or bi-directional, symmetric or asymmetric, at rates between 1.5 Mb/s and 45 Mb/s; and

2.2.5.2 Analog Radio Frequency based services (e.g. CATV).

**2.2.6 Interface Requirements**

2.2.6.1 Signal transfers between the Distribution Media and the NID and an adjacent Network Element shall have levels of degradation that are within the performance requirements set forth in Section 13.2 of this Attachment 2.

2.2.6.2 Distribution Media shall be equal to or better than each of the applicable interface requirements set forth in the following technical references:

2.2.6.2.1 Bellcore TR-NWT-000049, "Generic Requirements for Outdoor Telephone Network Interface Devices," Issued December 1, 1994;

2.2.6.2.2 Bellcore TR-NWT-000057, "Functional Criteria for Digital Loop Carrier Systems," Issued January 2, 1993;

2.2.6.2.3 Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines";

2.2.6.2.4 Bellcore TR-NWT-000253, SONET Transport Systems: Common Criteria (A module of TSGR, FR-NWT-000440), Issue 2, December 1991;

2.2.6.2.5 AT&T Data Communications Technical Reference TR 62310, DS0 Digital Local Channel Description and Interface Specification, August 1993; Also Addendum 1 and Addendum 2; and

2.2.6.2.6 AT&T Technical Reference TR 62411, ACCUNET T1.5 Service Description and Interface Specification, December 1990; Addendum 1, March 1991; Addendum 2, October 1992.

2.2.6.2.7 AT&T Technical Reference TR 62421, ACCUNET Spectrum of Digital Services Description and Interface Specification, December 1989; Also TR 62421A Addendum 2, November 1992.

### 3. **Loop Concentrator/Multiplexer**

#### 3.1 **Definition:**

3.1.1 The Loop Concentrator/Multiplexer is the Network Element that: (1) aggregates lower bit rate or band width signals to higher bit rate or bandwidth signals (multiplexing); (2) disaggregates higher bit rate or band width signals to lower bit rate or bandwidth signals (demultiplexing); (3) aggregates a specified number of signals or channels to fewer channels (concentrating); (4) performs signal conversion, including encoding of signals (e.g., analog to digital and digital to analog signal conversion); and (5) in some instances performs electrical to optical (E/O) conversion.

3.1.2 The Loop Concentrator/Multiplexer function may be provided through a Digital Loop Carrier (DLC) system, channel bank, multiplexer or other equipment at which traffic is encoded and decoded, multiplexed and demultiplexed, or concentrated.

#### 3.2 **Technical Requirements**

3.2.1 The Loop Concentrator/Multiplexer shall be capable of performing its functions on the signals for the following services, including but not limited to, (as needed by AT&T to provide end-to-end service capability to its customer):

3.2.1.1 2-wire voice grade basic telephone services;

3.2.1.2 2-wire ISDN;

3.2.1.3 2-wire CENTRANET;

3.2.1.4 2 and 4-wire PBX lines or trunks;

3.2.1.5 2 and 4-wire voice grade private lines and foreign exchange lines;

3.2.1.6 4-wire digital data (2.4Kbps through 64Kbps and n times 64Kbps (where  $n \leq 24$ );

3.2.1.7 4-wire DS1 (switched or private line);

3.2.1.8 DS-3 rate private lines;

3.2.1.9 Optical SONET rate private lines; and

- 3.2.1.10 Coin services
- 3.2.2 The Loop Concentrator/Multiplexer shall perform the following functions as appropriate:
  - 3.2.2.1 Analog to digital signal conversion of both incoming and outgoing (upstream and downstream) analog signals;
  - 3.2.2.2 Multiplexing of the individual digital signals up to higher transmission bit rate signals (e.g., DSO, DS1, DS3, or optical SONET rates) for transport to the GTE central office through the Loop Feeder; and
  - 3.2.2.3 Concentration of end-user customer signals onto fewer channels of a Loop Feeder (The concentration ratio provided for the Network Elements requested by AT&T shall be no higher than the Loop Concentrator/Multiplexer concentration ratio GTE uses to provide service to its own customers.).
- 3.2.3 GTE shall provide power for the Loop Concentrator/ Multiplexer, through a non-interruptible source if the function is performed in a central office, or from a commercial AC power source with battery backup if the equipment is located outside a central office. Such power shall also adhere to the requirements stated in the Section 2 Attachment3.
- 3.2.4 The Loop Concentrator/Multiplexer shall be provided to AT&T in accordance with the following Technical References:
  - 3.2.4.1 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993.
  - 3.2.4.2 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.
  - 3.2.4.3 ANSI T1.106 - 1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode).
  - 3.2.4.4 ANSI T1.105 - 1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.
  - 3.2.4.5 ANSI T1.102 - 1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces.

- 3.2.4.6 ANSI T1.403- 1989, American National Standard for Telecommunications - Carrier to Customer Installation, DS1 Metallic Interface Specification
- 3.2.4.7 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria. .
- 3.2.4.8 AT&T Data Communications Technical Reference TR 62310, DS0 Digital Local Channel Description and Interface Specification, August 1993; Also Addendum 1 and Addendum 2.
- 3.2.4.9 AT&T Technical Reference TR 62411, ACCUNET T1.5 Service Description and Interface Specification, December 1990; Addendum 1, March 1991; Addendum 2, October 1992.
- 3.2.4.10 AT&T Technical Reference TR 62421, ACCUNET Spectrum of Digital Services Description and Interface Specification, December 1989; Also TR 62421A Addendum 2, November 1992.
- 3.2.4.11 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.
- 3.2.4.12 AT&T Technical Reference TR 54018, ACCUNET T155 Service Description and Interface Specification.
- 3.2.4.13 Bellcore TR-TSY-000008, Digital Interface Between the SLC 96 Digital Loop Carrier System and a Local Digital Switch, Issue 2, August 1987.
- 3.2.4.14 Bellcore TR-NWT-000303, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, Issue 2, December 1992; Rev.1, December 1993; Supplement 1, December 1993.
- 3.2.4.15 Bellcore TR-TSY-000673, Operations Systems Interface for an IDLC System, (LSSGR) FSD 20-02-2100, Issue 1, September 1989.
- 3.2.4.16 AT&T Technical Reference TR 62411, ACCUNET T1.5 Service Description and Interface Specification, December 1990; Addendum 1, March 1991; Addendum 2, October 1992.
- 3.2.4.17 AT&T Technical Reference TR 62421, ACCUNET Spectrum of Digital Services Description and Interface Specification, December 1989; Also TR 62421A Addendum 2, November 1992.

- 3.2.4.18 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.
- 3.2.4.19 AT&T Technical Reference TR 54018, ACCUNET T155 Service Description and Interface Specification.
- 3.3 **Requirements for an Intelligent Loop Concentrator/Multiplexer**
  - 3.3.1 In addition to the basic functions described above for the Loop Concentrator/Multiplexer, the Intelligent Loop Concentrator/Multiplexer (IC/M) shall provide facility grooming, facility test functions, format conversion and signaling conversion as appropriate.
  - 3.3.2 At AT&T's option, GTE shall provide immediate and continuous configuration and reconfiguration of the channels within the physical interfaces (i.e., of cross connects, as well as direct AT&T control of such configurations and reconfigurations) on the underlying device that provides such IC/M function.
  - 3.3.3 At AT&T's option, GTE shall provide scheduled configuration and reconfiguration of the channels within the physical interfaces (i.e., of cross connects, as well as direct AT&T control of such configurations and reconfigurations) on the underlying device that provides such IC/M function.
  - 3.3.4 The underlying equipment that provides such IC/M function shall continuously monitor protected circuit packs and redundant common equipment.
  - 3.3.5 The underlying equipment that provides such IC/M function shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.
  - 3.3.6 The underlying equipment that provides such IC/M function shall be equipped with a redundant power supply or a battery back-up.
  - 3.3.7 At AT&T's option, GTE shall provide AT&T with real time performance monitoring and alarm data on IC/M elements that may affect AT&T's traffic. This includes IC/M hardware alarm data and facility alarm data on the underlying device that provides such IC/M function.
  - 3.3.8 At AT&T's option, GTE shall provide AT&T with real time ability to initiate tests on the underlying device that provides such IC/M function

integrated test equipment as well as other integrated functionality for routine testing and fault isolation.

3.3.9

The IC/M shall be capable of performing signaling conversion and data conditioning in compliance with AT&T Technical Reference TR 62421 ACCUNET® Spectrum of Digital Services, December 1989 and AT&T Technical Reference TR 62310 DS0 Digital Local Channel Description and Interface Specification, August 1993, including current addendums.

### 3.4 Interface Requirements

The Loop Concentrator/Multiplexer shall meet the following interface requirements, as appropriate for the configuration that AT&T designates:

- 3.4.1 The Loop Concentrator/Multiplexer shall provide an analog voice frequency copper twisted pair interface to the local switch (e.g., universal DLC applications), as described in the references in Section 3.2.4.
- 3.4.2 The Loop Concentrator/Multiplexer shall provide digital 4-wire electrical interfaces to the local digital switch, as described in the references in Section 3.2.4.
- 3.4.3 The Loop Concentrator/Multiplexer shall provide optical SONET interfaces at rates of OC-1, OC-3, OC-12 and OC-48#, # as described in the references in Section 3.2.4.
- 3.4.4 The Loop Concentrator/Multiplexer shall provide the Bellcore TR-303 DS1 level interface to a Local Digital switch. Loop Concentrator/Multiplexer shall provide Bellcore TR-08 modes 1&2 DS1 interfaces when designated by AT&T. Such interface requirements are specified in the references in Section 3.2.4.
- 3.4.5 The Loop Concentrator/Multiplexer shall provide Integrated Network Access (INA) DS1s for non-locally switched or non-switched special services, as described in the references in Section 3.2.4.
- 3.5 The Intelligent Loop Concentrator/Multiplexer shall be provided to AT&T in accordance with the Technical References set forth in Sections 3.2.4.13 through 3.2.4.19 above.

### 4. Loop Feeder

#### 4.1 Definition:

- 4.1.1 The Loop Feeder is the Network Element that provides connectivity between (1) a FDI associated with Loop Distribution and a termination point appropriate for the media in a central office, or (2) a Loop Concentrator/Multiplexer provided in a remote terminal and a termination point appropriate for the media in a central office. GTE shall provide AT&T physical access to the FDI, and the right to connect, the Loop Feeder to the FDI.

- 4.1.2 The physical medium of the Loop Feeder may be copper twisted pair, or single or multi-mode fiber as designated by AT&T. In certain cases, AT&T will require a copper twisted pair loop even in instances where the medium of the Loop Feeder for services that GTE offers is other than a copper facility.

4.2 **Requirements for All Loop Feeder Media**

- 4.2.1 The Loop Feeder shall be capable of transmitting analog voice frequency, basic rate ISDN, digital data, or analog radio frequency signals.
- 4.2.2 GTE shall provide appropriate power for all active elements in the Loop Feeder. GTE will provide appropriate power from a central office source, or from a commercial AC source with rectifiers for AC to DC conversion and 8-hour battery back-up when the equipment is located in an outside plant Remote Terminal (RT).

4.3 **Additional Requirements for Special Copper Loop Feeder Medium**

In addition to requirements set forth in Section 4.2 (above), AT&T may require GTE to provide copper twisted pair Loop Feeder which are unfettered by any intervening equipment (e.g. filters, load coils, and range extenders), so that AT&T can use these Loop Feeders for a variety of services by attaching appropriate terminal equipment at the ends.

4.4 **Additional Technical Requirements for DS1 Conditioned Loop Feeder**

In addition to the requirements set forth in Section 4.2 above, AT&T may designate that the Loop Feeder be conditioned to transport a DS1 signal. The requirements for such transport are defined in the references below in Section 4.6.

4.5 **Additional Technical Requirements for Optical Loop Feeder**

In addition to the requirements set forth in Section 4.2 above, AT&T may designate that Loop Feeder will transport DS3 and OCn (where n is defined in the technical reference in Section 3.2.4.4. The requirements for such transport are defined in the references below in Section 4.6.

- 4.6 GTE shall offer Loop Feeder in accordance with the requirements set forth in the following Technical References:

- 4.6.1 AT&T Technical Reference TR-62415 "Access Specifications for High Capacity DS1/DS3 Dedicated Digital Service";
- 4.6.2 Bellcore Technical Requirement TR-NWT-000499, Issue 5, December 1993, section 7 for DS1 interfaces; and,
- 4.6.3 AT&T Data Communications Technical Reference TR 62310, DS0 Digital Local Channel Description and Interface Specification, August 1993; Also Addendum 1 and Addendum 2.
- 4.6.4 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993.
- 4.6.5 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.
- 4.6.6 ANSI T1.106 - 1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode).
- 4.6.7 ANSI T1.105 - 1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.
- 4.6.8 ANSI T1.102 - 1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces.
- 4.6.9 ANSI T1.403- 1989, American National Standard for Telecommunications - Carrier to Customer Installation, DS1 Metallic Interface Specification
- 4.6.10 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria. .
- 4.6.11 AT&T Technical Reference TR 62411, ACCUNET T1.5 Service Description and Interface Specification, December 1990; Addendum 1, March 1991; Addendum 2, October 1992.
- 4.6.12 AT&T Technical Reference TR 62421, ACCUNET Spectrum of Digital Services Description and Interface Specification, December 1989; Also TR 62421A Addendum 2, November 1992.
- 4.6.13 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.

4.6.14 AT&T Technical Reference TR 54018, ACCUNET T155 Service Description and Interface Specification.

**4.7 Interface Requirements**

4.7.1 The Loop Feeder point of termination (POT) within a GTE central office will be as follows:

4.7.1.1 Copper twisted pairs shall terminate on the MDF;

4.7.1.2 DS1 Loop Feeder shall terminate on a DSX1, DCS1/0 or DCS3/1; and

4.7.1.3 Fiber Optic cable shall terminate on a LGX.

4.7.2 When requested by AT&T:

The Loop Feeder shall provide the analog voice frequency copper twisted pair interface for switched or private line services, as defined in the references in Section 4.7.7.

4.7.2.1 The Loop Feeder shall provide the ISDN basic rate interface, as defined in the references in Section 4.7.7, to the local digital switch designated by AT&T.

4.7.2.2 The Loop Feeder shall provide digital 4-wire electrical interfaces for digital data services, as defined in the references in Section 4.7.7.

4.7.2.3 The Loop Feeder shall provide the standard electrical DS1 interface for applications utilizing DS1 feeder, as defined in the references in Section 4.7.7.

4.7.2.4 The Loop Feeder shall provide optical SONET interfaces at one or more of the following rates, OC-1, OC-3, OC-12 or OC-48, as defined in the references in Section 4.7.7.

4.7.3 Loop Feeder shall be equal to or better than each of the applicable interface requirements set forth in the following technical references:

4.7.3.1 Bellcore TR-TSY-000008, Digital Interface Between the SLC 96 Digital Loop Carrier System and a Local Digital Switch, Issue 2, August 1987.

4.7.3.2 Bellcore TR-NWT-000303, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, Issue 2, December 1992; Rev.1, December 1993; Supplement 1, December 1993.

- 4.7.3.3 AT&T Technical Reference TR 62411, ACCUNET T1.5 Service Description and Interface Specification, December 1990; Addendum 1, March 1991; Addendum 2, October 1992.
- 4.7.3.4 AT&T Technical Reference TR 62421, ACCUNET Spectrum of Digital Services Description and Interface Specification, December 1989; Also TR 62421A Addendum 2, November 1992.
- 4.7.3.5 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.
- 4.7.3.6 AT&T Technical Reference TR 54018, ACCUNET T155 Service Description and Interface Specification.

## 5. Local Switching

### 5.1 **Definition:**

- 5.1.1 Local Switching is the Network Element that provides the functionality required to connect the appropriate originating lines or trunks wired to the Main Distributing Frame (MDF) or Digital Signal Cross Connect (DSX) panel to a desired terminating line or trunk. Such functionality shall include all of the features, functions, and capabilities that the underlying GTE switch that is providing such Local Switching function is then capable of providing, including but not limited to: line signaling and signaling software, digit reception, dialed number translations, call screening, routing, recording, call supervision, dial tone, switching, telephone number provisioning, announcements, calling features and capabilities (including call processing), CENTRANET, Automatic Call Distributor (ACD), Carrier pre-subscription (e.g., long distance carrier, intraLATA toll), Carrier Identification Code (CIC) portability capabilities, testing and other operational features inherent to the switch and switch software. It also provides access to transport, signaling (ISDN User Part (ISUP) and Transaction Capabilities Application Part (TCAP), and platforms such as adjuncts, Public Safety Systems (911), operator services, directory services and Advanced Intelligent Network (AIN). Remote Switching Module functionality is included in the Local Switching function. The switching capabilities used will be based on the line side features they support. Local Switching will also be capable of routing local, intraLATA, interLATA, and calls to international customer's preferred carrier; call features (e.g., call forwarding) and CENTRANET capabilities.

- 5.1.2 Local Switching also includes Data Switching, which provides:
- 5.1.2.1 For Asynchronous Transfer Mode (ATM) and Frame Relay Service, data services switching functionality that is required to connect the facilities from the User to Network Interface (UNI) to either another UNI or to a communications path at the Network to Network Interface (NNI). In this case, the purpose of Data Switching is to terminate, concentrate, and switch data traffic from Customer Premises Equipment (CPE) in the digital format consistent with the UNI specification for the customer. Data Switching also provides connectivity for the purpose of conveying the customer data to its final destination. The UNI and NNI are industry standard interface specifications that contain physical transmission layer requirements for speeds and line formats; data link layer requirements for the format of the data units that are passed between the user and the network; and protocol requirements for control procedures used in managing the interface. Data Switching provides this functionality in two distinct formats, ATM and Frame Relay. As these formats each have their own sets of industry UNI and NNI specifications, they are described separately below.
- 5.1.2.2 For ISDN Packet and Circuit Switched Data service, the data switching functionality that is required to connect between industry standard ISDN interfaces. In this case, the purpose of Data Switching is to terminate, concentrate, and switch data traffic from Customer Premises Equipment (CPE) in the digital format consistent with ISDN standards. Data Switching also provides connectivity for the purpose of conveying the customer data to its final destination.
- 5.2 The requirements set forth in this Section 5.2 apply to Local Switching, but not to the Data Switching function of Local Switching.
- 5.2.1 Technical Requirements**
- 5.2.1.1 GTE shall offer Local Switching together with and separately from Data Switching.
- 5.2.1.2 Local Switching shall be equal to or better than the requirements for Local Switching set forth in Bellcore's Local Switching Systems General Requirements (FR-NWT-000064).
- 5.2.1.3 When applicable, GTE shall route calls to the appropriate trunk or lines for call origination or termination.

- 5.2.1.4 GTE local switch shall maintain translations necessary to direct AIN queries for select lines and dialing sequences to the AT&T SS7 network.
- 5.2.1.5 GTE local switch shall accept AIN responses from the AT&T SCP via SS7 network interconnection then continue call handling according to instructions contained in the response.
- 5.2.1.6 GTE shall route calls on a per line or per screening class basis to (1) GTE platforms providing Network Elements or additional requirements, (2) AT&T designated platforms, or (3) third-party platforms.
- 5.2.1.7 GTE shall provide recorded announcements as designated by AT&T and call progress tones to alert callers of call progress and disposition.
- 5.2.1.8 GTE shall activate service for an AT&T customer or network interconnection on any of the Local Switching interfaces. This includes provisioning changes to change a customer from GTE's services to AT&T's services without loss of feature functionality.
- 5.2.1.9 GTE shall perform routine testing (e.g., Mechanized Loop Tests (MLT) and test calls such as 105, 107 and 108 type calls) and fault isolation on a schedule designated by AT&T.
- 5.2.1.10 GTE shall repair and restore any equipment or any other maintainable component that may adversely impact Local Switching.
- 5.2.1.11 GTE shall control congestion points such as those caused by radio station call-ins, and network routing abnormalities, using capabilities such as Automatic Call Gapping, Automatic Congestion Control, and Network Routing Overflow.
- 5.2.1.12 GTE shall perform manual call trace as designated by AT&T and permit customer originated call trace.
- 5.2.1.13 GTE shall record billable events and send the appropriate billing data to AT&T as outlined in Attachment 7.
- 5.2.1.14 For Local Switching used as 911 Tandems, GTE shall allow interconnection from AT&T local switching elements and GTE shall route the calls to the appropriate Public Safety Access Point (PSAP).
- 5.2.1.15 GTE shall provide, at least, each of the following special services:
  - 5.2.1.15.1 Essential Service Lines;

- 5.2.1.15.2 Telephone Service Prioritization;
- 5.2.1.15.3 Related services for handicapped;
- 5.2.1.15.4 Soft dial tone where required by law; and
- 5.2.1.15.5 Any other service required by law.
- 5.2.1.16 GTE shall provide Switching Service Point (SSP) capabilities and signaling software to interconnect the signaling links destined to the Signaling Transfer Point Switch (STPS). In the event that Local Switching is provided out of a switch without SS7 capability, the Tandem shall provide this capability as discussed in the section on Tandem Switching. These capabilities shall adhere to Bellcore specifications - TCAP (GR-1432-CORE), ISUP (GR-905-CORE), Call Management (GR-1429-CORE), Switched Fractional DS1 (GR-1357-CORE), Toll Free Service (GR-1428-CORE), Calling Name (GR-1597-CORE), Line Information Database (GR-954-CORE), and Advanced Intelligent Network (GR-2863-CORE).
- 5.2.1.17 GTE shall provide interfaces to adjuncts through industry standard and Bellcore interfaces. These adjuncts can include, but are not limited to, the Service Circuit Node and Automatic Call Distributors. Examples of existing interfaces are ANSI ISDN standards Q.931 and Q.932.
- 5.2.1.18 GTE shall provide performance data regarding a customer line, traffic characteristics or other measurable elements to AT&T, upon AT&T's request.
- 5.2.1.19 GTE shall offer Local Switching that provides feature offerings at parity to those provided by GTE to itself or any other party. Such feature offerings shall include but are not limited to:
  - 5.2.1.19.1 Basic and primary rate ISDN;
  - 5.2.1.19.2 Residential features;
  - 5.2.1.19.3 Customer Local Area Signaling Services (CLASS/LASS);
  - 5.2.1.19.4 CENTRANET (including equivalent administrative capabilities, such as customer accessible reconfiguration and detailed message recording); and

- 5.2.1.19.5 Advanced intelligent network triggers supporting AT&T features. GTE shall offer to AT&T all AIN triggers currently available to GTE for offering AIN-based services in accordance with the technical reference in Section 5.2.1.21.3, e.g.:
- 5.2.1.19.5.1 Off-Hook Immediate;
  - 5.2.1.19.5.2 Off-Hook Delay;
  - 5.2.1.19.5.3 Private EAMF Trunk;
  - 5.2.1.19.5.4 Shared Interoffice Trunk (EAMF, SS7);
  - 5.2.1.19.5.5 Termination Attempt;
  - 5.2.1.19.5.6 3/6/10;
  - 5.2.1.19.5.7 911;
  - 5.2.1.19.5.8 Feature Code Dialing;
  - 5.2.1.19.5.9 Custom Dialing Plan; and
  - 5.2.1.19.5.10 Automatic Route Selection.
- 5.2.1.20 GTE shall assign each AT&T customer line the class of service designated by AT&T (e.g., using line class codes or other switch specific provisioning methods), and shall route directory assistance calls from AT&T customers to AT&T directory assistance operators at AT&T's option.
- 5.2.1.21 GTE shall assign each AT&T customer line the class of services designated by AT&T (e.g., using line class codes or other switch specific provisioning methods) and shall route operator calls from AT&T customers to AT&T operators at AT&T's option. For example, GTE may translate 0- and 0+ intraLATA traffic, and route the call through appropriate trunks to an AT&T Operator Services Position System (OSPS). Calls from Local Switching must pass the ANI-II digits unchanged.
- 5.2.1.22 If AT&T requests the termination of Local Switching, GTE shall promptly remove the class of service assignment from the line.
- 5.2.1.23 If an AT&T customer subscribes to AT&T provided voice mail and messaging services, GTE shall redirect incoming calls to the AT&T

system based upon presubscribed service arrangements (e.g., busy, don't answer, number of rings). In addition, GTE shall provide a Standard Message Desk Interface-Enhanced (SMDI-E) interface to the AT&T system. GTE shall support the Inter-switch Voice Messaging Service (IVMS) capability.

5.2.1.24 Local Switching shall be offered in accordance with the requirements of the following technical references:

5.2.1.24.1 GR-1298-CORE, AIN Switching System Generic Requirements;

5.2.1.24.2 GR-1299-CORE, AIN Switch-Service Control Point (SCP)/Adjunct Interface Generic Requirements;

5.2.1.24.3 TR-NWT-001284, AIN 0.1 Switching System Generic Requirements;

5.2.1.24.4 SR-NWT-002247, AIN Release 1 Update.

**5.2.2 Interface Requirements:**

5.2.2.1 GTE shall provide the following interfaces to loops:

5.2.2.1.1 Standard Tip/Ring interface including loopstart or groundstart, on-hook signaling (e.g., for calling number, calling name and message waiting lamp);

5.2.2.1.2 Coin phone signaling;

5.2.2.1.3 Basic Rate Interface ISDN adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;

5.2.2.1.4 Two-wire analog interface to PBX;

5.2.2.1.5 Four-wire analog interface to PBX;

5.2.2.1.6 Four-wire DS1 interface to PBX or customer provided equipment (e.g. computers and voice response systems);

5.2.2.1.7 Primary Rate ISDN to PBX adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;

5.2.2.1.8 Switched Fractional DS1 with capabilities to configure Nx64 channels (where N = 1 to 24); and

- 5.2.2.1.9 Loops adhering to Bellcore TR-NWT-08 and TR-NWT-303 specifications to interconnect Digital Loop Carriers.
- 5.2.2.2 GTE shall provide access to the following but not limited to:
  - 5.2.2.2.1 SS7 Signaling Network or Multi-Frequency trunking if requested by AT&T;
  - 5.2.2.2.2 Interface to AT&T operator services systems or Operator Services through appropriate trunk interconnections for the system; and
  - 5.2.2.2.3 Interface to AT&T directory assistance services through the AT&T switched network or to Directory Services through the appropriate trunk interconnections for the system; and 950 access or other AT&T required access to interexchange carriers as requested through appropriate trunk interfaces.
- 5.3 The requirements set forth in this Section 5.3 applies only to the Data Switching function of Local Switching.
  - 5.3.1 Data Switching Technical Requirements**
    - 5.3.1.1 GTE shall offer Data Switching separately from other Local Switching functionality.
    - 5.3.1.2 Data Switching includes the necessary cross-office connectivity to the DSX or other appropriate connection point where interconnection to transport, or a cross-connect device can occur. Wherever Data Switching interconnects across network boundaries, it shall be in accordance with Network-to-Network Interface standards.
    - 5.3.1.3 Frame Relay Functional Requirements**
      - 5.3.1.3.1 Frame Relay Data Switching shall provide Permanent Virtual Circuits (PVCs) in accordance with the core protocol in ANSI Standard T1.618 ("Core aspects of Frame Protocol for use with Frame Relay Bearer Service," ANSI Standard T1.618, October 1991).
      - 5.3.1.3.2 Control procedures for PVC management that shall be provided by Data Switching over the UNI include at least the Local Management interface (LMI) (as described in "Frame Relay Specification with Extensions," Rev 1.0, Digital Equipment Corporation, Northern Telecom, Inc., and StrataCom, Inc., September 18, 1990), ANSI Standard T1.617: Annex D ("Signalling Specification for Frame Relay Bearer Service," ANSI

Standard T1.617, October 1991), and ITU-T Recommendation Q.933: Annex A ("Digital subscriber Signalling System No. 1 -- Signalling specification for frame mode bearer service," ITU-T Recommendation Q.933, March 1993) specifications.

- 5.3.1.3.3 Data Switching provided to AT&T shall be given equal priority to GTE's own traffic during overflow and congestion conditions. To control the flow of data through the network and to prevent congestion of shared resources, Data Switching shall perform traffic management and policing functions on the ingress of data (flowing from customer into the network) and the egress of data (flowing from the network out to the customer). Traffic management is the mechanism used by Data Switching to prevent and reduce congestion within the network, such as buffering data and discarding data when buffers overflow, and may be performed on ingress or egress. Traffic policing is the enforcement by Data Switching of the contracted rate for the ingress of data, described in terms of several parameters such as Peak Rate, Committed Rate, and Burst Size. Traffic management and policing performed at ingress and egress on AT&T's traffic shall be at parity with that performed on GTE's traffic.
- 5.3.1.3.4 Data Switching shall provide remote data access to integrated test equipment and other integrated functionality on a demand basis in accordance with the following:
- 5.3.1.3.4.1 Real-time, remote data access to systems that enable the determination of Data Link Connection Identifiers (DLCIs) used by a PVC;
- 5.3.1.3.4.2 Real-time, remote data access to performance monitoring and alarm data on events affecting (or potentially affecting) AT&T's traffic; and
- 5.3.1.3.4.3 Real-time, remote data access to maintenance systems to enable end-to-end (customer site-to-customer site) performance and error testing.
- 5.3.1.3.5 GTE shall provision and maintain the underlying facilities required to provide Data Switching.
- 5.3.1.4 **Frame Relay Interface Requirements**
- 5.3.1.4.1 From Customer Premises Equipment (CPE), AT&T's customers may interconnect to Data Switching using the transmission speeds, formats, and protocols as specified in the Frame Relay Forum Implementation Agreement 1 (FRF-1.1) ("User-to-Network Implementation Agreement (UNI)," FRF-1.1, Frame Relay Forum Technical Committee, January 18,

1996) and the standards cited in that document for the physical layer, data transfer, and control procedures. This includes, but is not limited to, access circuits at fractional T1 rates (56Kbps, Nx64 Kbps, (where N is 1 to 24)), T1, and T3.

- 5.3.1.4.2 Each T1 UNI interface port shall provide at least 250 PVCs.
- 5.3.1.4.3 T1 interfaces shall be provided using Extended SuperFrame (ESF) format, for enhanced error monitoring and to aid in sectionalizing problems.

**5.3.1.5 NNI Interface B Requirements**

**5.3.1.5.1** Data Switching shall interconnect across network boundaries using the Network-to-Network Interface standards as specified in Frame Relay Forum Implementation Agreement 2 (FRF-2.1) ("Network -to-Network Implementation Agreement (NNI)," FRF-2.1, Frame Relay Forum Technical Committee, July 10, 1995) for the physical layer, data transfer, and control (signaling) procedures. This standard includes both DS1 and DS3 among its listed physical interface formats.

**5.3.1.5.2** Each T1 NNI should be capable of providing at least 200 PVCs; each T3 NNI should be capable of providing at least 1700 PVCs.

**5.3.1.5.3** Frame Relay Variant A Functional Requirement: The distinction between Frame Relay Variant A format and the Frame Relay format is the interconnection to other carriers. The Frame Relay Variant A format shall provide such connectivity. This connectivity to other carriers may also take place through an ATM format NNI.

**5.3.1.5.4** Frame Relay Variant A Interface Requirement: The NNI interface shall support the BICI specification from the ATM Forum ("Broadband Inter-Carrier Interface," V. 1.1, ATM Forum, August 1994). This requires that the customer data be converted from Frame Relay format to ATM based on either the Frame Relay/ATM Network Interworking standard consistent with the technical requirements in, "Frame Relay/ATM PVC Network Interworking Implementation Agreement," FRF-5, Frame Relay Forum Technical Committee, December 20, 1994, or the Frame Relay/ATM Service Interworking standard consistent with the technical requirements in "Frame Relay/ATM PVC Service Interworking Implementation Agreement," FRF-8, Frame Relay Forum Technical Committee, April 14, 1995.

**5.3.1.6 ATM Functional Requirements**

**5.3.1.6.1** ATM Data Switching shall provide ATM PVCs and Switched Virtual Circuits (SVCs) according to the most recent ATM Forum UNI specifications that have been implemented by the vendor of the underlying device that provides Data Switching (e.g., "ATM User-to-Network Interface Specification," Version 3.1, ATM Forum, September 1994, ("ATM User-to-Network Interface Specification," Version 4.0, ATM Forum, (expected 1996)).

- 5.3.1.6.2 Data Switching provided to AT&T shall be given equal priority to GTE's own traffic during overflow and congestion conditions. Traffic management and policing performed at ingress and egress on AT&T's traffic shall be at least at parity with that provided by GTE for its own traffic.
- 5.3.1.6.3 Data Switching shall provide on-demand, real time, remote data access to integrated test equipment and other integrated functionality in accordance with the following:
  - 5.3.1.6.3.1 Real time, remote data access to systems that enable the determination of Virtual Path Identifiers (VPIs) and Virtual Channel Identifiers (VCIs) that are used by a PVC or an SVC;
  - 5.3.1.6.3.2 Real time, remote data access to performance monitoring and alarm data affecting (or potentially affecting) AT&T's traffic (upon AT&T's request); and
  - 5.3.1.6.3.3 Real time, remote data access to maintenance systems to enable end-to-end (customer site-to-customer site) performance testing and error monitoring shall be provided by GTE.
- 5.3.1.6.4 Data Switching shall provide spare facilities and equipment necessary to support provisioning and maintenance Direct Measures of Quality (DMOQs). This shall require sufficient redundancy, hot standby, and Mean Time To Restore engineering to meet the required availability DMOQs. Similarly, sufficient spare facilities, spare parts, and provisioning staff and systems shall be provided to meet DMOQs on time to provision new requests for service, at least at parity with GTE's own services.
- 5.3.1.6.5 GTE shall provision and maintain the facilities required to provide Data Switching.
- 5.3.1.7 **ATM Interface Requirements** -- the following interfaces shall be provided by GTE:
  - 5.3.1.7.1 **UNI Interface Requirements**
    - 5.3.1.7.1.1 AT&T's customers may interconnect to Data Switching using the transmission speeds, formats, and protocols as specified in the latest ATM Forum UNI specification that has been implemented by the switch vendor. This includes, but is not limited to, access circuits at T1, T3, and OC-3 speeds.

5.3.1.7.1.2 GTE shall provide T1 interfaces using Extended SuperFrame (ESF) format, for enhanced error monitoring and to aid in sectionalizing problems.

5.3.1.7.2 **FUNI Interface Requirements**

AT&T's customers may interconnect to Data Switching using the transmission speeds, formats, and protocols as specified in the ATM Forum Frame-based User-to-Network Interface ("ATM Inverse Multiplexer NxT1," Version 1.0, (expected 1996)) with access speeds including DS1 and NxDS0 (where  $N \leq 24$ ).

5.3.1.7.3 **ATM Inverse Multiplexing Interface Requirements**

AT&T's customers may interconnect to Data Switching using the transmission speeds, formats, and protocols as specified in the ATM Forum's inverse Multiplexer specification ("ATM Inverse Multiplexer NxT1," Version 1.0, (expected 1996)), expected in 1996. The speeds will be NxT1 (where N equals 1 to 8).

5.3.1.7.4 **NNI Interface D Requirements**

Data Switching shall interconnect across network boundaries using the Network-to-Network Interface standards as specified by the ATM Forum that will be available in the following time frames:

5.3.1.7.4.1 1996 -- Implementation not yet available.

5.3.1.7.4.2 1997 -- Interim Interswitch Signaling Protocol (IISP) ("Interim Interswitch Signalling Protocol (IISP)," Version 1.0, ATM Forum, December 14, 1994) for PVC and SVC services.

5.3.1.7.4.3 1997 -- Broadband Inter-Carrier Interface (BICI) Version 1.1 for PVC services.

5.3.1.7.4.4 1998 -- BICI Version 2.0 ("Broadband Inter-Carrier Interface," V. 2.0, ATM Forum, December 1995) for PVC and SVC services.

5.3.1.7.4.5 GTE shall provide the BICI interface if available in the specified timeframe. The IISP is not specified for use between two public networks, but may be provided as a second alternative for an interface.

5.3.1.7.4.6 Data Switching shall provide Interface speeds of: T3 and OC-3, and OC-12 in 1998.

### **5.3.1.7.5 Network Management Systems Interconnection (M5) Interface Requirements**

**5.3.1.7.5.1** Network Management systems shall be interconnected starting in the 1997-98 time frame by the M5 interface ("ATM Forum M5 Interface Specification," ATM Forum, (expected 1997)) which provides the following management capabilities for PVC and SVC services across the BICI:

**5.3.1.7.5.1.1** Configuration Management;

**5.3.1.7.5.1.2** Fault Management;

**5.3.1.7.5.1.3** Loopbacks (ATM and Physical);

**5.3.1.7.5.1.4** Threshold Reporting;

**5.3.1.7.5.1.5** Alarm Indication Signal/Remote Defect Indication (RDI) cell support;

**5.3.1.7.5.1.6** Operation and Maintenance (OAM) F4 and F5 cells for sectional and end to end tests;

**5.3.1.7.5.1.7** Performance Management -- access Management Information Bases (MIBs) via GTE Network Management Systems (NMS) to obtain network level information and status;

**5.3.1.7.5.1.8** Security Management -- read-only access between networks; and

**5.3.1.7.5.1.9** Accounting Management -- ability to retrieve required usage information from GTE for billing purposes;

**5.3.1.7.5.2** The M5 Interface shall interface with the CMIP and SNMP protocols.

### **5.3.1.8 Integrated Services Digital Network (ISDN)**

Integrated Services Digital Network (ISDN) is defined in two variations. The first variation is Basic Rate ISDN (BRI). BRI consists of 2 Bearer (B) Channels and one Data (D) Channel. The second variation is Primary Rate ISDN (PRI). PRI consists of 23 B Channels and one D Channel. Both BRI and PRI B Channels may be used for voice, Circuit Switched Data (CSD) or Packet Switched Data (PSD). The BRI D Channel may be used for call related signaling, non-call related signaling or packet switched data. The PRI D Channel may be used for call related signaling.

**5.3.1.8.1 Technical Requirements - ISDN**

5.3.1.8.1.1 GTE shall offer Data Switching providing ISDN that, at a minimum:

5.3.1.8.1.1.1 Provides integrated packet handling capabilities;

5.3.1.8.1.1.2 Allows for full 2B+D Channel functionality for BRI; and.

5.3.1.8.1.1.3 Allows for full 23B+D Channel functionality for PRI.

5.3.1.8.1.2 Each B Channel shall allow for voice, 64Kbs CSD, and PSD of 128 logical channels at minimum speeds of 19Kbs throughput of each logical channel up to the total capacity of the B Channel.

5.3.1.8.1.3 Each B Channel shall provide capabilities for alternate voice and data on a per call basis.

5.3.1.8.1.4 The BRI D Channel shall allow for call associated signaling, non-call associated signaling and PSD of 16 logical channels at minimum speeds of 9.6 Kbs throughput of each logical channel up to the total capacity of the D channel.

5.3.1.8.1.5 The PRI D Channel shall allow for call associated signaling.

**5.3.1.8.2 Interface Requirements - ISDN**

5.3.1.8.2.1 GTE shall provide the BRI U interface using 2 wire copper loops in accordance with TR-NWT-000393, January 1991, *Generic Requirements for ISDN Basic Access Digital Subscriber Lines*.

5.3.1.8.2.2 GTE shall provide the BRI interface using Digital Subscriber Loops adhering to Bellcore TR-NWT-303 specifications to interconnect Digital Loop Carriers.

5.3.1.8.2.3 GTE shall offer PSD interfaces adhering to the X.25, S.75 and S.75' ANSI and Bellcore requirements.

5.3.1.8.2.4 GTE shall offer PSD trunk interfaces operating at 56Kbs.

**6. Operator Systems****6.1 Definition**

Operator Systems is the Network Element that provides operator and automated call handling and billing, special services, customer telephone listings and optional call completion services. The Operator Systems, Network Element provides two types of functions: Operator Service functions and Directory Service functions, each of which are described in detail below.

## 6.2 **Operator Service**

### 6.2.1 **Definition**

Operator Service provides: (1) operator handling for call completion (for example, collect, third number billing, and manual credit card calls), (2) operator or automated assistance for billing after the customer has dialed the called number (for example, credit card calls); and (3) special services including but not limited to Busy Line Verification and Emergency Line Interrupt (ELI), Emergency Agency Call, Operator-assisted Directory Assistance, and Rate Quotes.

### 6.2.2 **Requirements**

6.2.2.1 Operator Services for calls which are routed from the local switch shall include but not be limited to the following:

6.2.2.1.1 GTE shall complete 0+ and 0- dialed local calls.

6.2.2.1.2 GTE shall complete 0+ and 0- intraLATA toll calls.

6.2.2.1.3 GTE shall complete calls that are billed to a calling card and AT&T shall designate to GTE the acceptable types of special billing.

6.2.2.1.4 GTE shall complete person-to-person calls.

6.2.2.1.5 GTE shall complete collect calls.

6.2.2.1.6 GTE shall provide the capability for callers to bill to a third party and complete such calls.

6.2.2.1.7 GTE shall complete station-to-station calls.

6.2.2.1.8 GTE shall process emergency calls.

6.2.2.1.9 GTE shall process Busy Line Verify and Emergency Line Interrupt requests.

- 6.2.2.1.10 GTE shall process emergency call trace.
- 6.2.2.1.11 GTE shall process operator-assisted directory assistance calls.
- 6.2.2.1.12 GTE shall provide rate quotes and process time-and-charges requests, and shall provide AT&T's rates when providing these services.
- 6.2.2.1.13 GTE shall route 0- traffic directly to a "live" operator team.
- 6.2.2.1.14 If technically feasible, GTE shall brand Operator Service as specified by AT&T. If AT&T's brand designation is not technically feasible, GTE shall provide "unbranded" Operator Service. ("Unbranded" refers to the absence of any identification of the service provider.)
- 6.2.2.1.15 GTE shall provide caller assistance for the handicapped.
- 6.2.2.1.16 GTE shall provide instant credit on calls as specified in writing by AT&T.
- 6.2.2.1.17 GTE shall provide operator to operator ("warm") transfers for AT&T calling card customers at no additional charge to AT&T.
- 6.2.2.1.18 GTE shall provide notification of the length of call.
- 6.2.2.2 Operator Service shall adhere to equal access requirements.
- 6.2.2.3 GTE shall exercise at least the same level of fraud control in providing Operator Service to AT&T that GTE provides for its own operator service.
- 6.2.2.4 GTE shall perform Billed Number Screening when handling Collect, Person-to-Person, and Billed-to-Third-Party calls.
- 6.2.2.5 GTE shall provide service measurements and accounting reports as designated by AT&T.
- 6.2.2.6 GTE shall direct customer account and other similar inquiries to the customer service center designated by AT&T.
- 6.2.2.7 GTE shall provide an electronic feed of customer call records in "EMR" format to AT&T in accordance with the time schedule designated by AT&T.
- 6.2.2.8 GTE shall accept and process overflow 911 traffic routed from AT&T to the underlying platform used to provide Operator Service.

6.2.2.9 GTE will offer AT&T a level of Operator Services which, at a minimum, meets all criteria, requirements and guidelines established by the applicable state regulatory commission, including but not limited to those established for number of rings to answer, average work time and the disaster recovery plan. To the extent that the level of service GTE provides to its own customers exceeds any criterion, requirement or guideline set by the applicable state regulatory commission, GTE shall offer the same level of service to AT&T.

6.2.2.10 GTE will make all of its automation and other new technology related to the provision of Operator Services available to AT&T as soon as it is available to GTE.

6.2.3 **Interface Requirements:**

With respect to Operator Services for calls that originate on local switching capability provided by or on behalf of AT&T, the interface requirements shall conform to the then current established system interface specifications for the platform used to provide Operator Service and the interface shall conform to industry standards.

6.3 **Directory Service**

6.3.1 **Definition:**

Directory Service provides local customer telephone number listings with the option to complete the call at the callers direction.

6.3.2 **Requirements**

6.3.2.1 GTE shall offer Directory Assistance Service which allows AT&T Customers to obtain a minimum of two listings, including name, address and phone number, per call;

6.3.2.2 GTE shall brand Directory Service with the brand designated by AT&T. If such branding is not technically feasible, then GTE shall not brand Directory Service whatsoever.

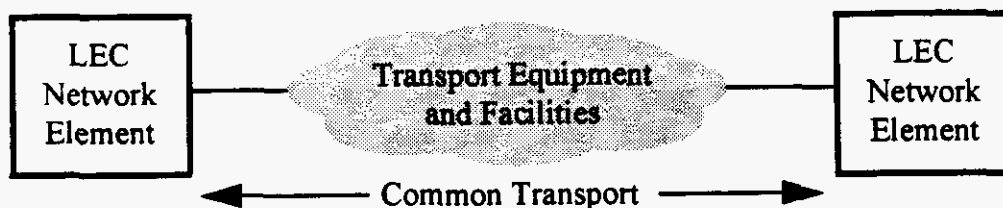
6.3.2.3 GTE Directory Assistance Service will provide optional call completion service to AT&T Customers in areas where call completion denial is available;

6.3.2.4 GTE shall provide data regarding billable events as requested by AT&T.

- 6.3.2.5 To the extent that GTE provides free calls to Directory Assistance to its customers as part of any local service offering, GTE shall provide the same to AT&T for AT&T Customers to whom such local service offerings are resold;
- 6.3.2.6 GTE shall ensure that any Directory Assistance information that is provided by ARU shall be repeated at least twice for AT&T Customers;
- 6.3.2.7 GTE shall provide AT&T Customers with Directory Assistance Service levels in accordance with the DMOQ's in Appendix 1 (for Total Service Resale) and Appendix 2 (for Unbundled Elements);
- 6.3.2.8 GTE Directory Assistance will provide emergency listings and related services to AT&T Customers at service levels equivalent to those provided to GTE customers;
- 6.3.2.9 GTE Directory Assistance Services will include a service which intercepts calls placed to an AT&T Customer whose number has been disconnected or changed and (1) advises the caller of the disconnect, and (2) provides the customer's new 10-digit number to the caller or, in the alternative, an appropriate status message (e.g., change to unlisted number, no forwarding number available, etc.), which is repeated at least twice;
- 6.3.2.10 GTE shall waive all Directory Assistance charges to AT&T for calls placed by handicapped AT&T Customers, and shall provide AT&T with the requirements which must be met in order to ensure that qualified handicapped AT&T Customers are identified as such in GTE's database.
- 6.3.2.11 **Directory Service Updates**
- 6.3.2.11.1 GTE shall update customer listings changes daily. These changes include:
- 6.3.2.11.1.1 New customer connections;
- 6.3.2.11.1.2 Customer disconnections; and
- 6.3.2.11.1.3 Customer changes, including but not limited to name, address and listing status..
- 6.3.2.12 These updates shall also be provided for non-listed and non-published numbers for use in emergencies.

## 7. Common Transport

- 7.1 **Definition:** Common Transport is an interoffice transmission path between GTE Network Elements that carries the traffic of more than one carrier and is not dedicated to a single carrier (illustrated in Figure 2). Where GTE Network Elements are connected by intra-office wiring, such wiring is provided as a part of the Network Elements and is not Common Transport.



**Figure 2**

## 7.2 Technical Requirements

- 7.2.1 Common Transport provided on DS1 or VT1.5 circuits, shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Central Office to Central Office "CO to CO" connections in the technical reference set forth in Section 7.2.4.31.
- 7.2.2 Common Transport provided on DS3 circuits, STS-1 circuits, and higher transmission bit rate circuits, Common Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Central Office to Central Office "CO to CO" connections in the technical reference set forth in Section 7.2.4.30.
- 7.2.3 GTE shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities that are used to provide Common Transport.
- 7.2.4 At a minimum, Common Transport shall meet all of the requirements set forth in the following technical references (as applicable for the transport technology being used):
- 7.2.4.1 ANSI T1.101-1994, American National Standard for Telecommunications - Synchronization Interface Standard Performance and Availability;

- 7.2.4.2 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;
- 7.2.4.3 ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;
- 7.2.4.4 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;
- 7.2.4.5 ANSI T1.105.01-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Automatic Protection Switching;
- 7.2.4.6 ANSI T1.105.02-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Payload Mappings;
- 7.2.4.7 ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;
- 7.2.4.8 ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET): Jitter at Network Interfaces - DS1 Supplement;
- 7.2.4.9 ANSI T1.105.05-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Tandem Connection;
- 7.2.4.10 ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;
- 7.2.4.11 ANSI T1.105.07-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Sub STS-1 Interface Rates and Formats;
- 7.2.4.12 ANSI T1.105.09-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Network Element Timing and Synchronization;
- 7.2.4.13 ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);

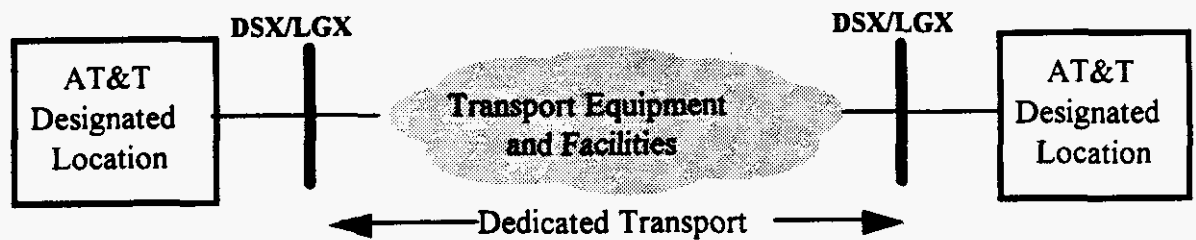
- 7.2.4.14 ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;
- 7.2.4.15 ANSI T1.107a-1990 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications);
- 7.2.4.16 ANSI T1.107b-1991 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;
- 7.2.4.17 ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);
- 7.2.4.18 ANSI T1.403-1989, Carrier to Customer Installation, DS1 Metallic Interface Specification;
- 7.2.4.19 ANSI T1.404-1994, Network-to-Customer Installation - DS3 Metallic Interface Specification;
- 7.2.4.20 ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);
- 7.2.4.21 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;
- 7.2.4.22 Bellcore FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;
- 7.2.4.23 Bellcore GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;
- 7.2.4.24 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria;
- 7.2.4.25 Bellcore TR-NWT 000507, Transmission, Section 7, Issue 5 (Bellcore, December 1993). (A module of LSSGR, FR-NWT-000064.);
- 7.2.4.26 Bellcore TR-NWT-000776, Network Interface Description for ISDN Customer Access;

- 7.2.4.27      Bellcore TR-INS-000342, High-Capacity Digital Special Access Service-Transmission Parameter Limits and Interface Combinations, Issue 1 February 1991;
- 7.2.4.28      Bellcore ST-TEC 000052, Telecommunications Transmission Engineering Textbook, Volume 2: Facilities, Third Edition, Issue 1 May 1989;
- 7.2.4.29      Bellcore ST-TEC-000051, Telecommunications Transmission Engineering Textbook Volume 1: Principles, Third Edition. Issue 1 August 1987;
- 7.2.4.30      AT&T Technical Reference 54014, ACCUNET T45 Service Description and Interface Specification, May 1992; and
- 7.2.4.31      AT&T Technical Reference TR 62411 ACCUNET T1.5 Service Description And Interface Specification, December 1990 and all addenda.

## 8. Dedicated Transport

### 8.1 Definition:

- 8.1.1 Dedicated Transport is an interoffice transmission path between AT&T designated locations. Such locations may include GTE central offices or other equipment locations, AT&T network components, other carrier network components, or customer premises. Dedicated Transport is depicted below in Figure 3.



**Figure 3**

- 8.1.2 GTE shall offer Dedicated Transport in each of the following ways:
- 8.1.2.1 As capacity on a shared circuit.
  - 8.1.2.2 As a circuit (e.g., DS1, DS3, STS-1) dedicated to AT&T.
  - 8.1.2.3 As a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to AT&T.
- 8.1.3 When Dedicated Transport is provided as a circuit or as capacity on a shared circuit, it shall include (as appropriate):
- 8.1.3.1 Multiplexing functionality;
  - 8.1.3.2 Grooming functionality; and,
  - 8.1.3.3 Redundant equipment and facilities necessary to support protection and restoration.
- 8.1.4 When Dedicated Transport is provided as a system it shall include:

- 8.1.4.1 Transmission equipment such as multiplexers, line terminating equipment, amplifiers, and regenerators;
- 8.1.4.2 Inter-office transmission facilities such as optical fiber, copper twisted pair, and coaxial cable. The specific arrangements with respect to dark fiber are covered in Attachment 3, "Ancillary Functions", Section 4, "Unused Transmission Media";
- 8.1.4.3 Redundant equipment and facilities necessary to support protection and restoration; and,
- 8.1.4.4 Dedicated Transport includes the Digital Cross-Connect System (DCS) functionality as an option. DCS is described below in Section 8.5.

## 8.2 **Technical Requirements**

This Section sets forth technical requirements for all Dedicated Transport.

- 8.2.1 When GTE provides Dedicated Transport as a circuit or a system, the entire designated transmission circuit or system (e.g., DS1, DS3, STS-1) shall be dedicated to AT&T designated traffic.
- 8.2.2 GTE shall offer Dedicated Transport in all then currently available technologies including, but not limited to, DS1 and DS3 transport systems, SONET (or SDH) Bi-directional Line Switched Rings, SONET (or SDH) Unidirectional Path Switched Rings, and SONET (or SDH) point-to-point transport systems (including linear add-drop systems), at all available transmission bit rates.
- 8.2.3 For DS1 or VT1.5 circuits, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the technical reference set forth in Section 7.2.4.31.
- 8.2.4 For DS3 circuits, STS-1 circuits, and higher rate circuits, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the technical reference set forth in Section 7.2.4.30.
- 8.2.5 When requested by AT&T, Dedicated Transport shall provide physical diversity. Physical diversity means that two circuits are provisioned in such a way that no single failure of facilities or equipment will cause a failure on both circuits.

- 8.2.6 When physical diversity is requested by AT&T, GTE shall provide the maximum feasible physical separation between intra-office and inter-office transmission paths (unless otherwise agreed by AT&T).
- 8.2.7 Upon AT&T's request, GTE shall provide real time and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, AT&T's traffic.
- 8.2.8 GTE shall offer the following interface transmission rates for Dedicated Transport:
- 8.2.8.1 DS1 (Extended SuperFrame - ESF, D4, and unframed applications shall be provided);
- 8.2.8.2 DS3 (C-bit Parity, M13, and unframed applications shall be provided);
- 8.2.8.3 SONET standard interface rates in accordance with ANSI T1.105 and ANSI T1.105.07 and physical interfaces per ANSI T1.106.06 (including referenced interfaces). In particular, VT1.5 based STS-1s will be the interface at an AT&T service node.
- 8.2.8.4 SDH Standard interface rates in accordance with International Telecommunications Union (ITU) Recommendation G.707 and Plesiochronous Digital Hierarchy (PDH) rates per ITU Recommendation G.704.
- 8.2.9 GTE shall provide cross-office wiring up to a suitable Point of Termination (POT) between Dedicated Transport and AT&T designated equipment. GTE shall provide the following equipment for the physical POT:
- 8.2.9.1 DSX1 for DS1s or VT1.5s;
- 8.2.9.2 DSX3 for DS3s or STS-1s; and
- 8.2.9.3 LGX for optical signals (e.g., OC-3 and OC-12)
- 8.2.10 GTE shall provide physical access to the POT for personnel designated by AT&T (for testing, facility interconnection, and other purposes designated by AT&T) 24 hours a day, 7 days a week.
- 8.2.11 For Dedicated Transport provided as a system, GTE shall design the system (including but not limited to facility routing and termination points and facility routing over existing transport facilities between GTE and a

second carrier to carry traffic designated for that carrier) according to AT&T specifications.

- 8.2.12 Upon AT&T's request, GTE shall provide AT&T with electronic provisioning control of an AT&T specified Dedicated Transport.
- 8.2.13 GTE shall offer Dedicated Transport together with and separately from DCS.

**8.3 Technical Requirements for Dedicated Transport Using SONET technology.**

This Section sets forth additional technical requirements for Dedicated Transport using SONET technology including rings, point-to-point systems, and linear add-drop systems.

- 8.3.1 All SONET Dedicated Transport provided as a system shall:
- 8.3.1.1 Be synchronized from both a primary and secondary Stratum 1 level timing source. Additional detail on synchronization requirements are given in Section 13.3.3.
  - 8.3.1.2 Provide SONET standard interfaces which properly interwork with SONET standard equipment from other vendors. This includes, but is not limited to, SONET standard Section, Line, and Path performance monitoring, maintenance signals, alarms, and data channels.
  - 8.3.1.3 Provide Data Communications Channel (DCC) or equivalent connectivity through the SONET transport system. Dedicated Transport provided over a SONET transport system shall be capable of routing DCC messages between AT&T SONET network components connected to the Dedicated Transport. For example, if AT&T leases a SONET ring from the GTE, that ring shall support DCC message routing between AT&T SONET network components connected to the ring.
  - 8.3.1.4 Support the following performance requirements for each circuit (STS-1, DS1, DS3, etc.):
    - 8.3.1.4.1 No more than 10 Errored Seconds Per Day (Errored Seconds are defined in the technical reference at Section 8.4.5); and
    - 8.3.1.4.2 No more than 1 Severely Errored Second Per Day (Severely Errored Seconds are defined in the technical reference at Section 8.4.5).
- 8.3.2 All SONET rings shall:

- 8.3.2.1 Be provisioned on physically diverse fiber optic cables (including separate building entrances where available and diversely routed intra-office wiring). "Diversely routed" shall be interpreted as the maximum feasible physical separation between transmission paths, unless otherwise agreed by AT&T.
- 8.3.2.2 Support dual ring interworking per SONET Standards.
- 8.3.2.3 Provide the necessary redundancy in optics, electronics, and transmission paths (including intra-office wiring) such that no single failure will cause a service interruption.
- 8.3.2.4 Provide the ability to disable ring protection switching at AT&T's direction (selective protection lock-out). This requirement applies to line switched rings only.
- 8.3.2.5 Provide the ability to use the protection channels to carry traffic (extra traffic). This requirement applies to line switched rings only.
- 8.3.2.6 Provide 50 millisecond restoration unless a ring protection delay is set to accommodate dual ring interworking schemes.
- 8.3.2.7 Have settable ring protection switching thresholds that shall be set in accordance with AT&T's specifications.
- 8.3.2.8 Provide revertive protection switching with a settable wait to restore delay with a default setting of 5 minutes. This requirement applies to line switched rings only.
- 8.3.2.9 Provide non-revertive protection switching. This requirement applies to path switched rings only.
- 8.3.2.10 Adhere to the following availability requirements, where availability is defined in the technical reference set forth in Section 8.4.5.
  - 8.3.2.10.1 No more than 0.25 minutes of unavailability month; and
  - 8.3.2.10.2 No more than 0.5 minutes of unavailability per year.
- 8.4 At a minimum, Dedicated Transport shall meet each of the requirements set forth in Section 7.2.4 and in the following technical references.

- 8.4.1 ANSI T1.105.04-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Data Communication Channel Protocols and Architectures;
- 8.4.2 ANSI T1.119-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications;
- 8.4.3 ANSI T1.119.01-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Protection Switching Fragment;
- 8.4.4 ANSI T1.119.02-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Performance Monitoring Fragment;
- 8.4.5 ANSI T1.231-1993 -American National Standard for Telecommunications - Digital Hierarchy - Layer 1 In-Service Digital Transmission performance monitoring.
- 8.4.6 AT&T Technical Reference TR 54016, Requirements For Interfacing Digital Terminal Equipment To Services Employing The Extended Superframe Format, September 1989;
- 8.4.7 AT&T Technical Reference TR 62421 ACCUNET Spectrum of Digital Services Description And Interface Specification, December 1989 and all addenda;
- 8.4.8 AT&T Technical Reference TR 62310, DS0 Digital Local Channel Description And Interface Specification, August 1993 and all addenda; and
- 8.4.9 AT&T Technical Reference TR 62415, Access Specification For High Capacity (DS1/DS3) Dedicated Digital Service, June 1989 and all addenda.
- 8.5 **Digital Cross-Connect System (DCS)**
  - 8.5.1 **Definition:**
    - 8.5.1.1 DCS is a function which provides automated cross connection of Digital Signal level 0 (DS0) or higher transmission bit rate digital channels

within physical interface facilities. Types of DCSs include but are not limited to DCS 1/0s, DCS 3/1s, and DCS 3/3s, where the nomenclature 1/0 denotes interfaces typically at the DS1 rate or greater with cross-connection typically at the DS0 rate. This same nomenclature, at the appropriate rate substitution, extends to the other types of DCSs specifically cited as 3/1 and 3/3. Types of DCSs that cross-connect Synchronous Transport Signal level 1 (STS-1s) or other Synchronous Optical Network (SONET) signals (e.g., STS-3) are also DCSs, although not denoted by this same type of nomenclature. DCS may provide the functionality of more than one of the aforementioned DCS types (e.g., DCS 3/3/1 which combines functionality of DCS 3/3 and DCS 3/1). For such DCSs, the requirements will be, at least, the aggregation of requirements on the "component" DCSs.

8.5.1.2 In locations where automated cross connection capability does not exist, DCS will be defined as the combination of the functionality provided by a Digital Signal Cross-Connect (DSX) or Light Guide Cross-Connect (LGX) patch panels and D4 channel banks or other DS0 and above multiplexing equipment used to provide the function of a manual cross connection.

8.5.1.3 Interconnection between a DSX or LGX, to a switch, another cross-connect, or other service platform device, is included as part of DCS.

## 8.6 DCS Technical Requirements

8.6.1 DCS shall provide completed end-to-end cross connection of the channels designated by AT&T.

8.6.2 DCS shall perform facility grooming, multipoint bridging, one-way broadcast, two-way broadcast, and facility test functions.

8.6.3 DCS shall provide multiplexing, format conversion, signaling conversion, or other functions.

8.6.4 The end-to-end cross connection assignment shall be input to the underlying device used to provide DCS from an operator at a terminal or via an intermediate system. The cross connection assignment shall remain in effect whether or not the circuit is in use.

8.6.5 GTE shall continue to administer and maintain DCS, including updates to the control software to current available releases.

- 8.6.6 GTE shall provide various types of Digital Cross-Connect Systems including:
- 8.6.6.1 DS0 cross-connects (typically termed DCS 1/0);
  - 8.6.6.2 DS1/VT1.5 (Virtual Tributaries at the 1.5Mbps rate) cross-connects (typically termed DCS 3/1);
  - 8.6.6.3 DS3 cross-connects (typically termed DCS 3/3);
  - 8.6.6.4 STS-1 cross-connects; and
  - 8.6.6.5 Other technically feasible cross-connects designated by AT&T.
- 8.6.7 GTE shall provide immediate and continuous configuration and reconfiguration of the channels between the physical interfaces (*i.e.*, GTE shall establish the processes to implement cross connects on demand, or, at AT&T's option, permit AT&T control of such configurations and reconfigurations).
- 8.6.8 GTE shall provide scheduled configuration and reconfiguration of the channels between the physical interfaces (*i.e.*, GTE shall establish the processes to implement cross connects on the schedule designated by AT&T, or, at AT&T's option, permit AT&T to control such configurations and reconfigurations).
- 8.6.9 DCS shall continuously monitor protected circuit packs and redundant common equipment.
- 8.6.10 DCS shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.
- 8.6.11 The underlying equipment used to provide DCS shall be equipped with a redundant power supply or a battery back-up.
- 8.6.12 GTE shall make available to AT&T spare facilities and equipment necessary for provisioning repairs, and to meet AT&T's Direct Measures Of Quality (DMOQs) as specified in the Provisioning and Maintenance sections.
- 8.6.13 At AT&T's option, GTE shall provide AT&T with real time performance monitoring and alarm data on the signals and the components of the underlying equipment used to provide DCS that actually impact or might impact AT&T's services. For example, this may include hardware alarm

data and facility alarm data on a DS3 in which an AT&T DS1 is traversing.

- 8.6.14 At AT&T's option, GTE shall provide AT&T with real time ability to initiate tests on integrated equipment used to test the signals and the underlying equipment used to provide DCS, as well as other integrated functionality for routine testing and fault isolation.
- 8.6.15 DCS shall provide SONET to asynchronous gateway functionality (e.g., STS-1 to DS1 or STS-1 to DS3).
- 8.6.16 DCS shall perform optical to electrical conversion where the underlying equipment used to provide DCS contains optical interfaces or terminations (e.g., Optical Carrier level 3, i.e., OC-3, interfaces on a DCS 3/1).
- 8.6.17 DCS shall have SONET ring terminal functionality where the underlying equipment used to provide DCS acts as a terminal on a SONET ring.
- 8.6.18 DCS shall provide multipoint bridging of multiple channels to other DCSs. AT&T may designate multipoint bridging to be one-way broadcast from a single master to multiple tributaries, or two-way broadcast between a single master and multiple tributaries.
- 8.6.19 DCS shall multiplex lower speed channels onto a higher speed interface and demultiplex higher speed channels onto lower speed interfaces as designated by AT&T.
- 8.6.20 DCS shall perform signaling conversion and data conditioning as designated by AT&T. Such functions shall comply, at a minimum, with AT&T Technical Reference TR 62421 ACCUNET® Spectrum of Digital Services, December 1989 and AT&T Technical Reference TR 62310 DS0 Digital Local Channel Description and Interface Specification, August 1993, including current addendums.
- 8.7 **DCS Interface Requirements**
  - 8.7.1 GTE shall provide physical interfaces on DS0, DS1, and VT1.5 channel cross-connect devices at the DS1 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.
  - 8.7.2 GTE shall provide physical interfaces on DS3 channel cross-connect devices at the DS3 rate or higher. In all such cases, these interfaces

shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.

- 8.7.3 GTE shall provide physical interfaces on STS-1 cross-connect devices at the OC-3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU , and AT&T standards.
- 8.7.4 Interfaces on all other cross-connect devices shall be in compliance with applicable Bellcore, ANSI, ITU , and AT&T standards.
- 8.8 DCS shall, at a minimum, meet all the requirements set forth in the following technical references:
  - 8.8.1 AT&T Technical Reference TR 62421 ACCUNET® Spectrum of Digital Services Description And Interface Specification, December 1989 and TR 62421A Addendum 2, November 1992;
  - 8.8.2 AT&T Data Communications Technical Reference TR 62310 DS0 Digital Local Channel Description and Interface Specification, August 1993, and all addendums;
  - 8.8.3 AT&T Technical Reference TR 62415 Access Specification For High Capacity (DS1/DS3) Dedicated Digital Service, June 1989, and all addendums including TR 62415A3 July, 1992;
  - 8.8.4 AT&T Technical Reference TR 62411 ACCUNET® T1.5 Service Description And Interface Specification, December 1990 and all addendums including Addendum 2, October 1992;
  - 8.8.5 AT&T Technical Reference TR 54014 ACCUNET® T45 and T45 Reserved Services - Service Description And Interface Specification;
  - 8.8.6 AT&T Technical Reference TR 54018 OC-3 Optical Interface Specifications, November 1991;
  - 8.8.7 AT&T Technical Reference TR 54016 Requirements For Interfacing Digital Terminal Equipment To Services Employing The Extended Superframe Format, September 1989;
  - 8.8.8 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;
  - 8.8.9 ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;

- 8.8.10      ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;
- 8.8.11      ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;
- 8.8.12      ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET): Jitter at Network Interfaces - DS1 Supplement;
- 8.8.13      ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;
- 8.8.14      ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);
- 8.8.15      ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;
- 8.8.16      ANSI T1.107a-1990 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications);
- 8.8.17      ANSI T1.107b-1991 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;
- 8.8.18      ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);
- 8.8.19      ANSI T1.403-1989, Carrier to Customer Installation, DS1 Metallic Interface Specification;
- 8.8.20      ANSI T1.404-1994, Network-to-Customer Installation - DS3 Metallic Interface Specification;
- 8.8.21      ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);

- 8.8.22 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;
- 8.8.23 FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;
- 8.8.24 GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;
- 8.8.25 GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria; and
- 8.8.26 TR-NWT-000776, Network Interface Description for ISDN Customer Access.

## 9. **Signaling Link Transport**

### 9.1 **Definition:**

Signaling Link Transport is a set of two or four dedicated 56 Kbps. transmission paths between AT&T-designated Signaling Points of Interconnection (SPOI) that provides appropriate physical diversity.

### 9.2 **Technical Requirements**

- 9.2.1 Signaling Link Transport shall consist of full duplex mode 56 kbps transmission paths.
- 9.2.2 Of the various options available, Signaling Link Transport shall perform in the following two ways:
  - 9.2.2.1 As an "A-link" which is a connection between a switch or SCP and a home Signaling Transfer Point Switch (STPS) pair; and
  - 9.2.2.2 As a "D-link" which is a connection between two STPS pairs in different company networks (e.g., between two STPS pairs for two Competitive Local Exchange Carriers (CLECs)).
- 9.2.3 Signaling Link Transport shall consist of two or more signaling link layers as follows:
  - 9.2.3.1 An A-link layer shall consist of two links.
  - 9.2.3.2 A D-link layer shall consist of four links.

- 9.2.4 A signaling link layer shall satisfy a performance objective such that:
  - 9.2.4.1 There shall be no more than two minutes down time per year for an A-link layer; and
  - 9.2.4.2 There shall be negligible (less than 2 seconds) down time per year for a D-link layer.
- 9.2.5 A signaling link layer shall satisfy interoffice and intraoffice diversity of facilities and equipment, such that:
  - 9.2.5.1 No single failure of facilities or equipment causes the failure of both links in an A-link layer (i.e., the links should be provided on a minimum of two separate physical paths end-to-end); and
  - 9.2.5.2 No two concurrent failures of facilities or equipment shall cause the failure of all four links in a D-link layer (i.e., the links should be provided on a minimum of three separate physical paths end-to-end).

### 9.3 Interface Requirements

- 9.3.1 There shall be a dedicated DS1 (1.544 Mbps) interface at the AT&T-designated SPOIs. Each 56 kbps transmission path shall appear as a DS0 channel within the DS1 interface.

### 10. Signaling Transfer Points (STPs)

- 10.1 **Definition:** Signaling Transfer Points is a signaling network function that includes all of the capabilities provided by the signaling transfer point switches (STPSs) and their associated signaling links which enable the exchange of SS7 messages among and between switching elements, database elements and signaling transfer point switches. Figure 4 depicts Signaling Transfer Points.

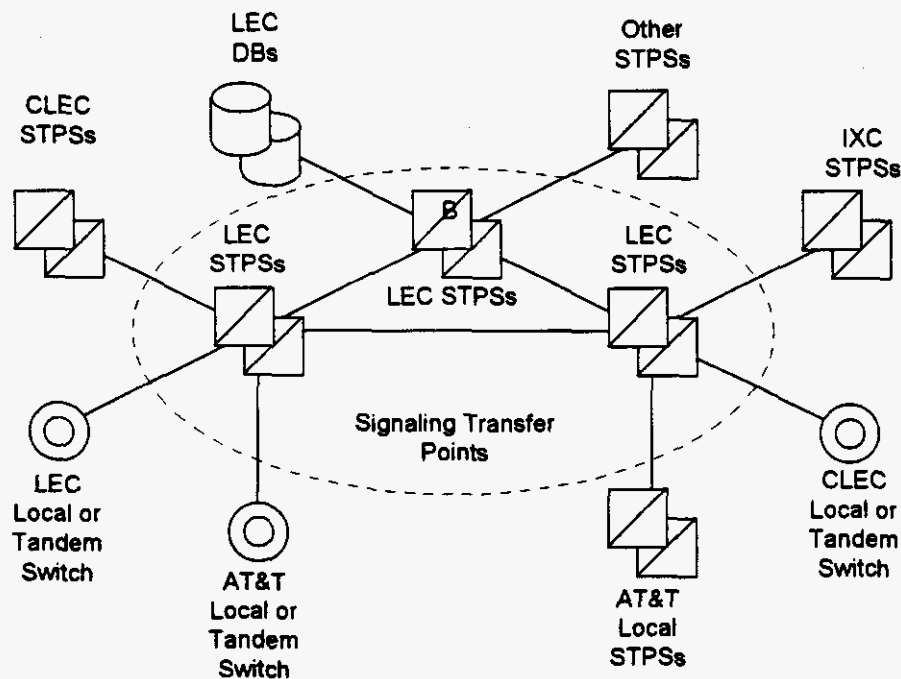


Figure 4

### 10.2 Technical Requirements

- 10.2.1 STPs shall provide access to all other Network Elements connected to the GTE SS7 network. These include:
- 10.2.1.1 GTE Local Switching or Tandem Switching;

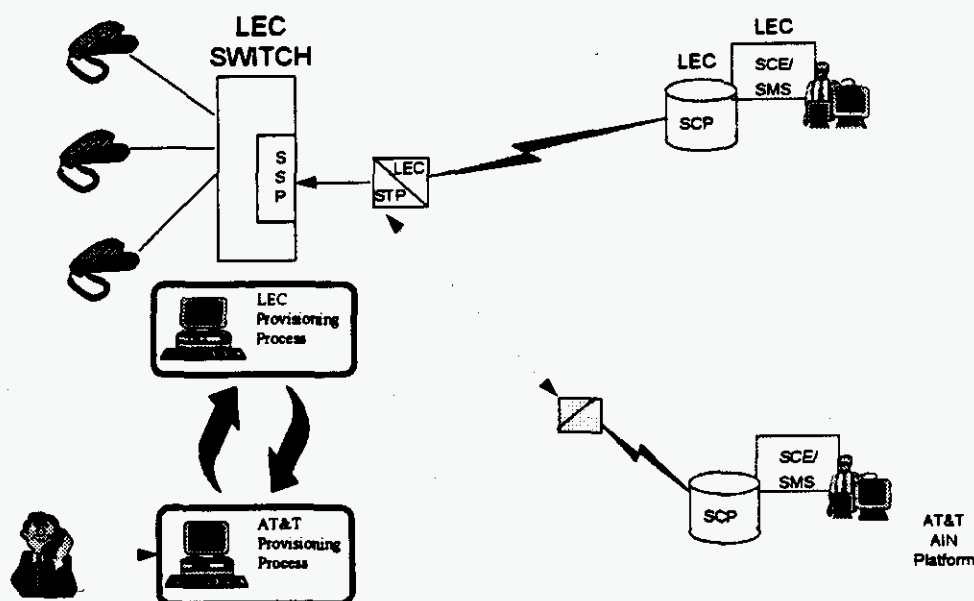
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- 10.2.1.2 GTE Service Control Points/DataBases;
- 10.2.1.3 Third-party local or tandem switching systems; and
- 10.2.1.4 Third-party-provided STPSs.
- 10.2.2 The connectivity provided by STPs shall fully support the functions of all other Network Elements connected to the GTE SS7 network. This explicitly includes the use of the GTE SS7 network to convey messages which neither originate nor terminate at a signaling end point directly connected to the GTE SS7 network (*i.e.*, transient messages). When the GTE SS7 network is used to convey transient messages, there shall be no alteration of the Integrated Services Digital Network User Part (ISDNUP) or Transaction Capabilities Application Part (TCAP) user data that constitutes the content of the message.
- 10.2.3 If a GTE tandem switch routes calling traffic, based on dialed or translated digits, on SS7 trunks between an AT&T local switch and third party local switch, the GTE SS7 network shall convey the TCAP messages that are necessary to provide Call Management features (Automatic Callback, Automatic Recall, and Screening List Editing) between the AT&T local STPSs and the STPSs that provide connectivity with the third party local switch, even if the third party local switch is not directly connected to the GTE STPSs.
- 10.2.4 STPs shall provide all functions of the MTP as specified in ANSI T1.111 (Reference 10.10.4.10.4.1). This includes:
  - 10.2.4.1 Signaling Data Link functions, as specified in ANSI T1.111.2;
  - 10.2.4.2 Signaling Link functions, as specified in ANSI T1.111.3; and
  - 10.2.4.3 Signaling Network Management functions, as specified in ANSI T1.111.4.
- 10.2.5 STPs shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112 (Reference 10.10.4.10.4.3). In particular, this includes Global Title Translation (GTT) and SCCP Management procedures, as specified in T1.112.4. In cases where the destination signaling point is a GTE local or tandem switching system or data base, or is an AT&T or third party local or tandem switching system directly connected to the GTE SS7 network, STPs shall perform final GTT of messages to the destination and SCCP Subsystem Management of the destination. In all other cases, STPs

shall perform intermediate GTT of messages to a gateway pair of STPSs in an SS7 network connected with the GTE SS7 network, and shall not perform SCCP Subsystem Management of the destination.

- 10.2.6 STPs shall also provide the capability to route SCCP messages based on ISNI, as specified in ANSI T1.118 (Reference 10.10.4.10.4.6), when this capability becomes available on GTE STPs.
- 10.2.7 When such capability is deployed in the GTE network, STPs shall provide all functions of the OMAP commonly provided by STPs, as specified in the reference in Section 10.4.5. This includes:
  - 10.2.7.1 MTP Routing Verification Test (MRVT); and,
  - 10.2.7.2 SCCP Routing Verification Test (SRVT).
- 10.2.8 This Section 10.2.8 applies when such capabilities are deployed in the GTE network. In cases where the destination signaling point is a GTE local or tandem switching system or DB, or is an AT&T or third party local or tandem switching system directly connected to the GTE SS7 network, STPs shall perform MRVT and SRVT to the destination signaling point. In all other cases, STPs shall perform MRVT and SRVT to a gateway pair of STPSs in an SS7 network connected with the GTE SS7 network. This requirement shall be superseded by the specifications for Internetwork MRVT and SRVT if and when these become approved ANSI standards and available capabilities of GTE STPSs.
- 10.2.9 STPs shall be equal to or better than the following performance requirements:
  - 10.2.9.1 MTP Performance, as specified in ANSI T1.111.6; and
  - 10.2.9.2 SCCP Performance, as specified in ANSI T1.112.5.
- 10.2.10 SS7 Advanced Intelligent Network (AIN) Access
  - 10.2.10.1 SS7 AIN Access shall provide the AT&T SCP access to the GTE local switch via interconnection of the GTE SS7 and AT&T SS7 networks. This interconnection arrangement shall result in the GTE local switch recognizing the AT&T SCP as at least at parity with GTE SCPs in terms of interfaces, performance and capabilities.

- 10.2.10.2 SS7 AIN Access is the provisioning of AIN triggers in a GTE local switch and interconnection of the GTE SS7 network with the AT&T SS7 network to exchange TCAP queries and responses with an AT&T SCP. See Figure 5 below.



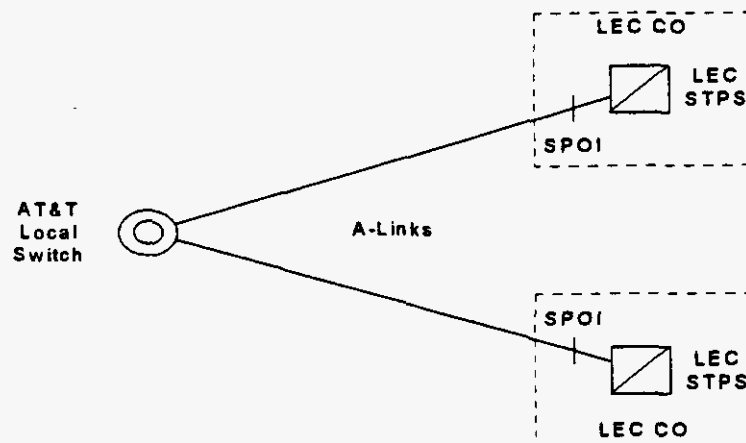
**Figure 5**

- 10.2.10.3 Physical interconnection between the GTE SS7 and the AT&T SS7 networks shall be through facilities and protocols as specified in the SS7 Network Interconnection section of this Agreement.
- 10.2.10.4 Reliability of interconnection shall be consistent with requirements for diversity and survivability as specified in the SS7 Network Interconnection section of this Agreement.
- 10.2.10.5 Delay associated with GTE local switch queries to the AT&T SCP shall be equal to or shorter than the delay associated with queries to the GTE SCP.
- 10.2.10.6 GTE's STPs shall maintain global title translations necessary to direct AIN queries for select global title address and translation type values to the AT&T SS7 network.

- 10.2.10.7 GTE's STPs shall route AIN responses from the AT&T SCP via SS7 network interconnect to the local switch designated in the Signaling Connection Control Part (SCCP) called party address.
- 10.2.10.8 Network management controls resulting from an overload in elements not supporting AT&T customers shall not affect queries to AT&T SCPs.
- 10.2.10.9 Requirements for billing and recording information to track AIN query-response usage shall be consistent with Connectivity Billing and Recording requirements as specified in Attachment 6 (e.g., recorded message format and content, timeliness of feed, data format and transmission medium).
- 10.2.10.10 GTE shall provide to AT&T all necessary testing resources and staff to perform service certification testing prior to service deployment in accordance with the Cooperative section of this Agreement.
- 10.2.10.11 When AT&T selects SS7 AIN Access, GTE will provide an interface to the GTE STP provisioning process for provisioning of GTE STP global title translation data.
- 10.2.10.12 When AT&T selects SS7 AIN Access, GTE will provide interconnection of its SS7 network with the GTE SS7 network for exchange of AIN TCAP messages .
- 10.2.10.13 GTE's STPs shall offer SS7 AIN Access in accordance with the requirements of the following technical references:
  - 10.2.10.13.1 GR-2863-CORE, CCS Network Interface Specification Supporting Advanced Intelligent Network (AIN); and
  - 10.2.10.13.2 GR-2902-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll-Free Service Using Advanced Intelligent Network (AIN).
- 10.3 **Interface Requirements**
  - 10.3.1 GTE shall provide the following STPs options to connect AT&T or AT&T-designated local switching systems or STPs to the GTE SS7 network:
    - 10.3.1.1 An A-link interface from AT&T local switching systems; and,
    - 10.3.1.2 A D-link interface from AT&T local STPs.

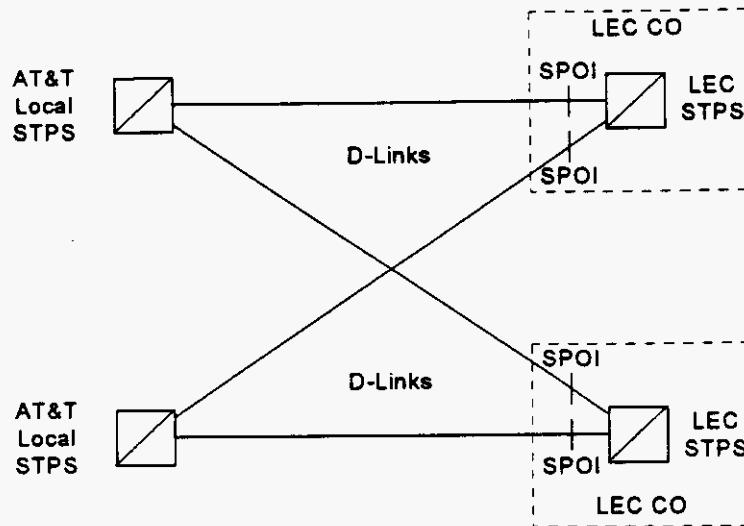
10.3.2 Each type of interface shall be provided by one or more sets (layers) of signaling links, as follows:

10.3.2.1 An A-link layer shall consist of two links, as depicted in Figure 6.



**Figure 6. A-Link Interface**

10.3.2.2 A D-link layer shall consist of four links, as depicted in Figure 7.



**Figure 7. D-Link Interface**

- 10.3.3 The Signaling Point of Interconnection (SPOI) for each link shall be located at a cross-connect element, such as a DSX-1, in the Central Office (CO) where the GTE STPS is located. There shall be a DS1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface. GTE shall offer higher rate DS1 signaling for interconnecting AT&T local switching systems or STPSs with GTE STPSs as soon as these become approved ANSI standards and available capabilities of GTE STPSs.
- 10.3.4 GTE shall provide intraoffice diversity between the SPOIs and the GTE STPS, so that no single failure of intraoffice facilities or equipment shall cause the failure of both D-links in a layer connecting to a GTE STPS.
- 10.3.5 GTE shall provide MTP and SCCP protocol interfaces that shall conform to all sections relevant to the MTP or SCCP in the following specifications:
- 10.3.5.1 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP);
- 10.3.5.2 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP); and
- 10.3.5.3 **Message Screening**
- 10.3.6 GTE shall set message screening parameters so as to accept messages from AT&T local or tandem switching systems destined to any signaling point in the GTE SS7 network with which the AT&T switching system has a legitimate signaling relation.
- 10.3.7 GTE shall set message screening parameters so as to accept messages from AT&T local or tandem switching systems destined to any signaling point or network interconnected within the GTE SS7 network with which the AT&T switching system has a legitimate signaling relation.
- 10.3.8 GTE shall set message screening parameters so as to accept messages destined to an AT&T local or tandem switching system from any signaling point or network interconnected within the GTE SS7 network with which the AT&T switching system has a legitimate signaling relation.

- 10.3.9 GTE shall set message screening parameters so as to accept and send messages destined to an AT&T SCP from any signaling point or network interconnected within the GTE SS7 network with which the AT&T SCP has a legitimate signaling relation.
- 10.4 STPs shall be equal to or better than all of the requirements for STPs set forth in the following technical references:
- 10.4.1 ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);
- 10.4.2 ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;
- 10.4.3 ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);
- 10.4.4 ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;
- 10.4.5 ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);
- 10.4.6 ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);
- 10.4.7 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP); and
- 10.4.8 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

11. **Service Control Points/Databases**

11.1 **Definition:**

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- 11.1.1 Databases are the Network Elements that provide the functionality for storage of, access to, and manipulation of information required to offer a particular service and/or capability.
- 11.1.2 A Service Control Point (SCP) is a specific type of Database Network Element functionality deployed in a Signaling System 7 (SS7) network that executes service application logic in response to SS7 queries sent to it by a switching system also connected to the SS7 network. SCPs also provide operational interfaces to allow for provisioning, administration and maintenance of subscriber data and service application data. (e.g., an 800 database stores customer record data that provides information necessary to route 800 calls).
- 11.2 **Technical Requirements for SCPs/Databases**
- Requirements for SCPs/Databases within this section address storage of information, access to information (e.g. signaling protocols, response times), and administration of information (e.g., provisioning, administration, and maintenance). All SCPs/Databases shall be provided to AT&T in accordance with the following requirements, except where such a requirement is superseded by specific requirements set forth in Subsections 11.3 through 11.7:
- 11.2.1 GTE shall provide physical interconnection to SCPs through the SS7 network and protocols, as specified in Section 10 of this Attachment, with TCAP as the application layer protocol.
- 11.2.2 GTE shall provide physical interconnection to databases via industry standard interfaces and protocols (e.g. ISDN and X.25).
- 11.2.3 The reliability of interconnection options shall be consistent with requirements for diversity and survivability as specified in Section 10 of this Attachment (which applies to both SS7 and non-SS7 interfaces).
- 11.2.4 Database functionality shall be unavailable a maximum of 30 minutes per year.
- 11.2.5 GTE shall provide Database provisioning consistent with the provisioning requirements of this Agreement (e.g., data required, edits, acknowledgments, data format and transmission medium and notification of order completion).
- 11.2.6 The operational interface provided by GTE shall complete Database transactions (i.e., add, modify, delete) for AT&T customer records stored

in GTE databases within 24 hours, or sooner where GTE provisions its own customer records within a shorter interval.

- 11.2.7 GTE shall provide Database maintenance consistent with the maintenance requirements as specified in this Agreement (e.g., notification of GTE Network Affecting Events, testing, dispatch schedule and measurement and exception reports).
- 11.2.8 GTE shall provide billing and recording information to track database usage consistent with connectivity billing and recording requirements as specified in this Agreement (e.g., recorded message format and content, timeliness of feed, data format and transmission medium).
- 11.2.9 GTE shall provide SCPs/Databases in accordance with the physical security requirements specified in this Agreement.
- 11.2.10 GTE shall provide SCPs/Databases in accordance with the logical security requirements specified in this Agreement.

### 11.3 Local Number Portability Database

#### 11.3.1 Definition

The Local Number Portability (LNP) database supplies routing numbers for calls involving numbers that have been ported from one local service provider to another. LNP database functionality shall also include Global Title Translations (GTT) for calls involving ported numbers even if GTE provides GTT functionality in another Network Element. This Subsection 11.3 supplements the requirements of Subsection 11.2 and 11.7. GTE shall provide the Local Number Portability Database in accordance with the following:

#### 11.3.2 Requirements

- 11.3.2.1 GTE shall make the GTE LNP database available for AT&T switches to query to obtain the appropriate routing number on calls to ported numbers or the industry specified indication that the number is not ported for non-portable numbers in NPA-NXXs that are opened to portability. The specified indication will also be provided when the NPA-NXX is not open to portability;
- 11.3.2.2 Query responses shall provide such additional information, for example, Service Provider identification, as may be specified in the LNP implementation in the relevant regulatory jurisdiction;

- 11.3.2.3 GTE shall provide GTT for CLASS or LIDB queries routed to the GTEnetwork by AT&T switches. The GTE database or other Network Element shall perform the GTT function and route the query to the appropriate switch or LIDB accordingly;
- 11.3.2.4 The LNP database shall provide such other functionality as has been specified in the regulatory jurisdiction in which portability has been implemented;
- 11.3.2.5 Unavailability of the LNP database query and GTT applications shall not exceed 4 minutes per year; and
- 11.3.2.6 The GTE LNP database shall respond to a query within 125 msec. of receipt of the query.

**11.3.3 Interface Requirements**

GTE shall interconnect the signaling interface between the AT&T or other local switch and the LNP database using the TCAP protocol as specified in the technical reference in Section 11.7.1, together with the signaling network interface as specified in the technical reference in Section 11.7.2, and such further requirements (e.g., AIN or IN protocols) as may be specified by bodies responsible for implementation of number portability in the jurisdiction at hand; (e.g., Generic Requirements for SCP Application and GTT Function for Number Portability, Issue 0.3, Final Draft, March 22, 1996 [Editor - Ameritech Inc.]).

**11.4 Line Information Database (LIDB).**

This Subsection 11.4 defines and sets forth additional requirements for the Line Information Database. This Subsection 11.4 supplements the requirements of Subsection 11.2 and 11.7.

**11.4.1 Definition:**

The Line Information Database (LIDB) is a transaction-oriented database accessible through Common Channel Signaling (CCS) networks. It contains records associated with customer Line Numbers and Special Billing Numbers (in accordance with the requirements in the technical reference in Section 11.7.5). LIDB accepts queries from other Network Elements and provides appropriate responses. The query originator need not be the owner of LIDB data. LIDB queries include functions such as screening billed numbers that provides the ability to accept Collect or Third Number Billing calls and validation of Telephone Line Number based non-proprietary calling cards. The interface for the

LIDB functionality is the interface between the GTE CCS network and other CCS networks. LIDB also interfaces to administrative systems. The administrative system interface provides Work Centers with an interface to LIDB for functions such as provisioning, auditing of data, access to LIDB measurements and reports.

## **11.4.2 Technical Requirements**

- 11.4.2.1** Prior to the availability of a long-term solution for Local Number Portability, GTE shall enable AT&T to store in GTE's LIDB any customer Line Number or Special Billing Number record, (in accordance with the technical reference in Section 11.7.5) whether ported or not, for which the NPA-NXX or NXX-0/1XX Group is supported by that LIDB.
- 11.4.2.2** Prior to the availability of a long-term solution for Local Number Portability, GTE shall enable AT&T to store in GTE's LIDB any customer Line Number or Special Billing Number (in accordance with the technical reference in Section 11.7.5) record, whether ported or not, and NPA-NXX and NXX-0/1XX Group Records, belonging to an NPA-NXX or NXX-0/1XX owned by AT&T.
- 11.4.2.3** Subsequent to the availability of a long-term solution for Local Number Portability, GTE shall enable AT&T to store in GTE's LIDB any customer Line Number or Special Billing Number (in accordance with the technical reference in Section 11.7.5) record, whether ported or not, regardless of the number's NPA-NXX or NXX-0/1XX.
- 11.4.2.4** GTE shall perform the following LIDB functions (i.e., processing of the following query types as defined in the technical reference in Section 11.7.5) for AT&T's customer records in LIDB:
  - 11.4.2.4.1** Billed Number Screening (provides information such as whether the Billed Number may accept Collect or Third Number Billing calls); and
  - 11.4.2.4.2** Calling Card Validation
- 11.4.2.5** GTE shall process AT&T's customer records in LIDB at least at parity with GTE customer records, with respect to other LIDB functions (as defined in the technical reference in Section 11.7.5). GTE shall indicate to AT&T what additional functions (if any) are performed by LIDB in their network.
- 11.4.2.6** Within two (2) weeks after a request by AT&T, GTE shall provide AT&T with a list of the customer data items which AT&T would have to provide

in order to support each required LIDB function. The list shall indicate which data items are essential to LIDB function, and which are required only to support certain services. For each data item, the list shall show the data formats, the acceptable values of the data item and the meaning of those values.

- 11.4.2.7 GTE shall provide LIDB systems for which operating deficiencies that would result in calls being blocked, shall not exceed 30 minutes per year.
- 11.4.2.8 GTE shall provide LIDB systems for which operating deficiencies that would not result in calls being blocked shall not exceed 12 hours per year.
- 11.4.2.9 GTE shall provide LIDB systems for which the LIDB function shall be in overload (degraded performance in accordance with the technical reference in Section 11.7.5) no more than 12 hours per year. Such deficiency period is in addition to the periods specified in Sections 11.4.2.7 and 11.4.2.8 above.
- 11.4.2.10 GTE shall make changes to NPA-NXX and NXX-0/1XX Group Records, and Line Number and Special Billing Number Records associated with AT&T customers, as requested by AT&T, within 24 hours of AT&T's request, or within time frames at parity with those time frames in which GTE makes such changes for its own or any other carrier's customers, whichever is less.
- 11.4.2.11 In the event that end user customers changes their local service provider, GTE shall maintain customer data (for line numbers, card numbers, and for any other types of data maintained in LIDB) so that such customers shall not experience any interruption of service due to the lack of such maintenance of customer data.
- 11.4.2.12 All additions, updates and deletions of AT&T data to the LIDB shall be solely at the direction of AT&T.
- 11.4.2.13 GTE shall provide priority updates to LIDB for AT&T data upon AT&T's request (e.g., to support fraud protection).
- 11.4.2.14 GTE shall provide AT&T the capability to directly obtain, through an electronic interface, reports of all AT&T data in LIDB.

- 11.4.2.15 GTE shall provide LIDB systems such that no more than 0.01% of AT&T customer records will be missing from LIDB, as measured by AT&T audits.
- 11.4.2.16 GTE shall perform backup and recovery of all of AT&T's data in LIDB as frequently as AT&T may reasonably specify, including sending to LIDB all changes made since the date of the most recent backup copy.
- 11.4.2.17 GTE shall provide to AT&T access to LIDB measurements and reports at least at parity with the capability GTE has for its own customer records and that GTE provides to any other party. Such access shall be electronic.
- 11.4.2.18 GTE shall provide AT&T with LIDB reports of data which are missing or contain errors, as well as any misroute errors, within the time period reasonably designated by AT&T.
- 11.4.2.19 GTE shall prevent any access to or use of AT&T data in LIDB by GTE personnel or by any other party that is not authorized by AT&T in writing.
- 11.4.2.20 GTE shall provide AT&T performance of the LIDB Data Screening function, which allows a LIDB to completely or partially deny specific query originators access to LIDB data owned by specific data owners, (in accordance with the technical reference in Section 11.7.5) for Customer Data that is part of an NPA-NXX or NXX-0/1XX wholly or partially owned by AT&T at least at parity with GTE Customer Data. GTE shall obtain from AT&T the screening information associated with LIDB Data Screening of AT&T data in accordance with this requirement.
- 11.4.2.21 GTE shall accept queries to LIDB associated with AT&T customer records, and shall return responses in accordance with the requirements of this Section 11.
- 11.4.2.22 GTE shall provide mean processing time at the LIDB within 0.50 seconds under normal conditions as defined in the technical reference in Section 11.7.5.
- 11.4.2.23 GTE shall provide processing time at the LIDB within 1 second for 99% of all messages under normal conditions as defined in the technical reference in Section 11.7.5.
- 11.4.2.24 GTE shall provide 99.9 % of all LIDB queries in a round trip response within 2 seconds.

- 11.4.2.25 GTE shall provide LIDB performance that complies with the following AT&T Direct Measures of Quality (DMOQs) :
- 11.4.2.25.1 There shall be at least a 99.9.% reply rate to all query attempts.
- 11.4.2.25.2 Queries shall time out at LIDB no more than 0.1% of the time.
- 11.4.2.25.3 Data in LIDB replies shall have at no more than 2% unexpected data values, for all queries to LIDB.
- 11.4.2.25.4 No more than 0.01% of all LIDB queries shall return a missing customer record.
- 11.4.2.25.5 There shall be no defects in LIDB Data Screening of responses.
- 11.4.2.25.6 Group troubles shall occur for no more than 1% of LIDB queries. Group troubles include:
- 11.4.2.25.6.1 Missing Group - When reply is returned "vacant" but there is no active record for the 6-digit NPA-NXX group.
- 11.4.2.25.6.2 Vacant Code - When a 6-digit code is active but is not assigned to any customer on that code.
- 11.4.2.25.6.3 Non-Participating Group and unavailable Network Resource - should be identified in the LARG (LIDB Access Routing Guide) so AT&T does not pay access for queries that will be denied in LIDB.
- 11.4.3 **Interface Requirements.**  
GTE shall offer LIDB in accordance with the requirements of this subsection 11.4.3.
- 11.4.3.1 The interface to LIDB shall be in accordance with the technical reference in Section 11.7.3.
- 11.4.3.2 The CCS interface to LIDB shall be the standard interface described in Section 11.7.3.
- 11.4.3.3 The LIDB Data Base interpretation of the ANSI-TCAP messages shall comply with the technical reference in Section 11.7.4. Global Title Translation shall be maintained in the signaling network in order to support signaling network routing to the LIDB.
- 11.5 **Toll Free Number Database**

The Toll Free Number Database is a SCP that provides functionality necessary for toll free (e.g., 800 and 888) number services by providing routing information and additional so-called vertical features during call set-up in response to queries from SSPs. This Subsection 11.5 supplements the requirements of Subsection 11.2 and 11.7. GTE shall provide the Toll Free Number Database in accordance with the following:

**11.5.1 Technical Requirements**

**11.5.1.1** GTE shall make the GTE Toll Free Number Database available for AT&T to query with a toll-free number and originating information.

**11.5.1.2** The Toll Free Number Database shall return carrier identification and, where applicable, the queried toll free number, translated numbers and instructions as it would in response to a query from a GTE switch.

**11.5.1.3** The SCP shall also provide, at AT&T's option, such additional features as described in SR-TSV-002275 (BOC Notes on the LEC Networks, SR-TSV-002275, Issue 2, (Bellcore, April 1994)) as are available to GTE. These may include but are not limited to:

**11.5.1.3.1** Network Management;

**11.5.1.3.2** Customer Sample Collection; and

**11.5.1.3.3** Service Maintenance

**11.5.2 Interface Requirements**

The signaling interface between the AT&T or other local switch and the Toll-Free Number database shall use the TCAP protocol as specified in the technical reference in Section 11.7.1, together with the signaling network interface as specified in the technical reference in Sections 11.7.2 and 11.7.6

**11.6 Automatic Location Identification/Data Management System (ALI/DMS)**

The ALI/DMS Database contains customer information (including name, address, telephone information, and sometimes special information from the local service provider or customer) used to determine to which Public Safety Answering Point (PSAP) to route the call. The ALI/DMS database is used to provide more routing flexibility for E911 calls than Basic 911. This Subsection 11.7 supplements the requirements of

Subsection 11.7.2 and 11.7.6. GTE shall provide the Emergency Services Database in accordance with the following:

**11.6.1 Technical Requirements**

- 11.6.1.1** GTE shall offer AT&T a data link to the ALI/DMS database or permit AT&T to provide its own data link to the ALI/DMS database. GTE shall provide error reports from the ALI/DMS data base to AT&T immediately after AT&T inputs information into the ALI/DMS data base. Alternately, AT&T may utilize GTE to enter customer information into the data base on a demand basis, and validate customer information on a demand basis.
- 11.6.1.2** The ALI/DMS database shall contain the following customer information:
- 11.6.1.2.1** Name;
- 11.6.1.2.2** Address;
- 11.6.1.2.3** Telephone number; and
- 11.6.1.2.4** Other information as appropriate (e.g., whether a customer is blind or deaf or has another disability).
- 11.6.1.3** When GTE is responsible for administering the ALI/DMS database in its entirety, ported number NXXs entries for the ported numbers should be maintained unless AT&T requests otherwise and shall be updated if AT&T requests.
- 11.6.1.4** When Remote Call Forwarding (RCF) is used to provide number portability to the local customer and a remark or other appropriate field information is available in the database, the shadow or "forwarded-to" number and an indication that the number is ported shall be added to the customer record.
- 11.6.1.5** If GTE is responsible for configuring PSAP features (for cases when the PSAP or GTE supports an ISDN interface) it shall ensure that CLASS Automatic Recall (Call Return) is not used to call back to the ported number.

**11.6.2 Interface Requirements.**

The interface between the E911 Switch or Tandem and the ALI/DMS database for AT&T customers shall meet industry standards.

- 11.7 SCPs/Databases shall be equal to or better than all of the requirements for SCPs/Databases set forth in the following technical references:
- 11.7.1 GR-246-CORE, Bell Communications Research Specification of Signaling System Number 7, ISSUE 1 (Bellcore, December 1995);
- 11.7.2 GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP). (Bellcore, March 1994);
- 11.7.3 GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service 6, Issue 1, Rev. 1 (Bellcore, October 1995);
- 11.7.4 GR-1149-CORE, OSSGR Section 10: System Interfaces, Issue 1 (Bellcore, October 1995) (Replaces TR-NWT-001149);
- 11.7.5 GR-1158-CORE, OSSGR Section 22.3: Line Information Database 6, Issue (Bellcore, October 1995)
- 11.7.6 GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service (Bellcore, May 1995); and
- 11.7.7 BOC Notes on the RLEC Networks, SR-TSV-002275, ISSUE 2, (Bellcore, April 1994).
- 11.8 **Service Creation Environment and Service Management System (SCE/SMS) Advanced Intelligent Network (AIN) Access**
- 11.8.1 SCE/SMS AIN Access shall provide AT&T the ability to create service applications in the GTE SCE and deploy those applications via the GTE SMS to the GTE SCP. This interconnection arrangement shall provide AT&T access to the GTE development environment and administrative system in a manner at least at parity with GTE's ability to deliver its own AIN-based services. SCE/SMS AIN Access is the provisioning of AIN triggers in a GTE local switch, development of service applications within the GTE Service Creation Environment, and deployment of service applications via the GTE Service Management System. See Figure 8 below.

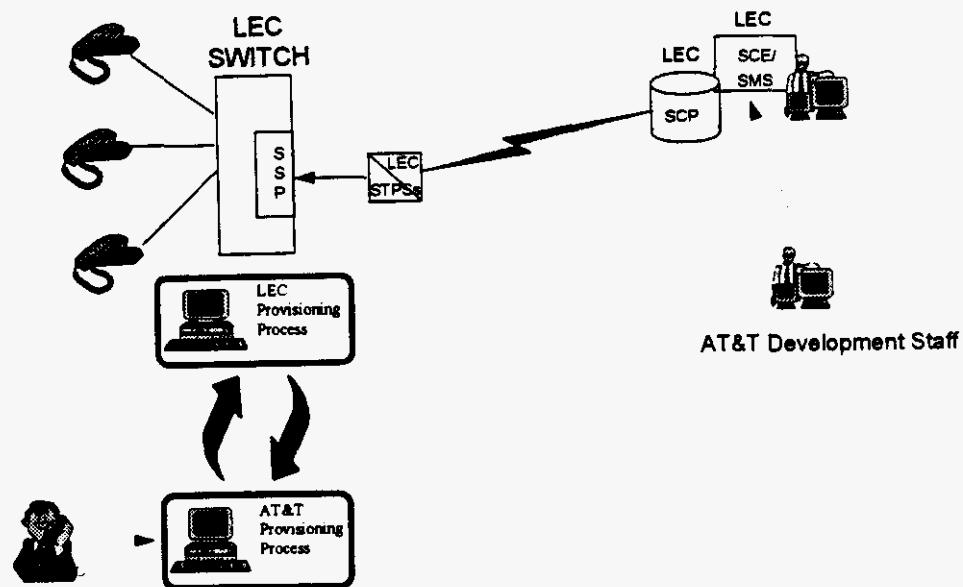


Figure 8

- 11.8.2 GTE shall make SCE hardware, software, testing and technical support (e.g., help desk, system administrator) resources available to AT&T. Scheduling of SCE resources shall allow AT&T at least equal priority to GTE.
- 11.8.3 The GTE SCE/SMS shall allow for multi-user access with proper source code management and other logical security functions as specified in the Security section of this Agreement.
- 11.8.4 The GTE SCP shall partition and protect AT&T service logic and data from unauthorized access, execution or other types of compromise.
- 11.8.5 GTE shall provide training, documentation, and technical support of AT&T development staff in a manner at least at parity with that provided to GTE's development staff. Training sessions shall be "suitcased" to AT&T facilities or delivered at GTE facilities, at AT&T's discretion.
- 11.8.6 When AT&T selects SCE/SMS AIN Access, GTE shall provide for a secure, controlled access environment on-site as well as via remote data connections (e.g., dial up, LAN, WAN).

- 11.8.7 When AT&T selects SCE/SMS AIN Access, GTE shall allow AT&T to download data forms and/or tables to GTE SCP via GTE SMS without intervention from GTE (e.g., service customization and customer subscription).
- 11.8.8 SCPs/Databases shall offer SCE/SMS AIN Access in accordance with the requirements of: GR-1280-CORE, AIN Service Control Point (SCP) Generic Requirements.
12. **Tandem Switching**
- 12.1 **Definition**
- Tandem Switching is the function that establishes a communications path between two switching offices through a third switching office (the tandem switch).
- 12.2 **Technical Requirements**
- 12.2.1 Tandem Switching shall have the same capabilities or equivalent capabilities as those described in Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, 6/1/90. The requirements for Tandem Switching include, but are not limited to the following:
- 12.2.1.1 Tandem Switching shall provide signaling to establish a tandem connection;
- 12.2.1.2 Tandem Switching shall provide screening and routing as designated by AT&T;
- 12.2.1.3 Tandem Switching shall provide recording of all billable events designated by AT&T;
- 12.2.1.4 Tandem Switching shall provide Advanced Intelligent Network triggers supporting AIN features;
- 12.2.1.5 Tandem Switching shall provide connectivity to Operator Systems as designated by AT&T;
- 12.2.1.6 Tandem Switching shall provide access to Toll Free number portability database as designated by AT&T;

- 12.2.1.7 Tandem Switching shall provide all trunk interconnections discussed under the "Network Interconnection" section (e.g., SS7, MF, DTMF, DialPulse, PRI-ISDN, DID, and CAMA-ANI (if appropriate for 911));
- 12.2.1.8 Tandem Switching shall provide connectivity to PSAPs where 911 solutions are deployed and the tandem is used for 911; and
- 12.2.1.9 Tandem Switching shall provide connectivity to transit traffic to and from other carriers.
- 12.2.2 Tandem Switching shall accept connections (including the necessary signaling and trunking interconnections) between end offices, other tandems, IECs, ICOs, CAPs and CLEC switches.
- 12.2.3 Tandem Switching shall provide local tandeming functionality between two end offices including two offices belonging to different CLEC's (e.g., between an AT&T end office and the end office of another CLEC).
- 12.2.4 Tandem Switching shall preserve CLASS/LASS features and Caller ID as traffic is processed. Additional signaling information and requirements are provided in Section 10.
- 12.2.5 Tandem Switching shall record billable events and send them to the area billing centers designated by AT&T. Billing requirements are specified in Attachment 6 of this Agreement.
- 12.2.6 GTE shall perform routine testing and fault isolation on the underlying switch that is providing Tandem Switching and all its interconnections. When requested by AT&T, the results and reports of the testing shall be made immediately available to AT&T.
- 12.2.7 GTE shall maintain AT&T's trunks and interconnections associated with Tandem Switching at least at parity to its own trunks and interconnections.
- 12.2.8 When requested by AT&T, GTE shall provide performance data regarding traffic characteristics or other measurable elements to AT&T for review.
- 12.2.9 Tandem Switching shall control congestion using capabilities such as Automatic Congestion Control and Network Routing Overflow. Congestion control provided or imposed on AT&T traffic shall be at parity with controls being provided or imposed on GTE traffic (e.g., GTE

shall not block AT&T traffic and leave its traffic unaffected or less affected).

- 12.2.10 Tandem Switching shall route calls to GTE or AT&T endpoints or platforms (e.g., operator services and PSAPs) on a per call basis as designated by AT&T. Detailed primary and overflow routing plans for all interfaces available within the GTE switching network shall be mutually agreed to by AT&T and GTE. Such plans shall meet AT&T requirements for routing calls through the local network.
- 12.2.11 Tandem Switching shall process originating toll-free traffic received from an AT&T local switch.
- 12.2.12 In support of AIN triggers and features, Tandem Switching shall provide SSP capabilities when these capabilities are not available from the Local Switching Network Element.
- 12.2.13 The Local Switching and Tandem Switching functions may be combined in an office. If this is done, both Local Switching and Tandem switching shall provide all of the functionality required of each of those Network Elements in this Agreement.
- 12.3 **Interface Requirements**
- 12.3.1 Tandem Switching shall provide interconnection to the E911 PSAP where the underlying Tandem is acting as the E911 Tandem.
- 12.3.2 Tandem Switching shall interconnect, with direct trunks, to all carriers with which GTEinterconnects.
- 12.3.3 GTE shall provide all signaling necessary to provide Tandem Switching with no loss of feature functionality.
- 12.3.4 Tandem Switching shall interconnect with AT&T's switch, using two-way trunks, for traffic that is transiting via the GTE network to interLATA or intraLATA carriers. At AT&T's request, Tandem Switching shall record and keep records of traffic for billing.
- 12.3.5 At AT&T's request, Tandem Switching shall provide overflow routing of traffic from a given trunk group or groups onto another trunk group or groups according to the methodology that AT&T designates.
- 12.3.6 Tandem Switching shall adhere to the Trunk Interface Requirements provided in the "Network Interconnection" section.

- 12.4 Tandem Switching shall meet or exceed (i.e., be more favorable to AT&T) each of the requirements for Tandem Switching set forth in the following technical references:
- 12.4.1 Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, 6/1/90;
- 12.4.2 GR-905-CORE covering CCSNIS;
- 12.4.3 GR-1429-CORE for call management features; and  
GR-2863-CORE and GR-2902-CORE covering CCS AIN interconnection

13. **Additional Requirements**

This Section 13 of Attachment 2 sets forth the additional requirements for unbundled Network Elements which GTE agrees to offer to AT&T under this Agreement.

13.1 **Cooperative Testing**

13.1.1 **Definition:**

Cooperative Testing means that GTE shall cooperate with AT&T upon request or as needed to (1) ensure that the Network Elements and Ancillary Functions and additional requirements being provided to AT&T by GTE are in compliance with the requirements of this Agreement, and (2) test the overall functionality of various Network Elements and Ancillary Functions provided by GTE to AT&T in combination with each other or in combination with other equipment and facilities provided by AT&T or third parties, and (3) ensure that all operational interfaces and processes are in place and functioning properly and efficiently for the provisioning and maintenance of Network Elements and Ancillary Functions and so that all appropriate billing data can be provided to AT&T.

13.1.2 **Requirements**

Within 60 days of the Effective Date of this Agreement, AT&T and GTE will agree upon a process to resolve technical issues relating to interconnection of AT&T's network to GTE's network and Network Elements and Ancillary Functions. The agreed upon process shall include procedures for escalating disputes and unresolved issues up through higher levels of each company's management. If AT&T and GTE do not reach agreement on such a process within 60 days, any

issues that have not been resolved by the parties with respect to such process shall be submitted to the ADR procedures set forth in Section 13 and Attachment A of this Agreement unless both parties agree to extend the time to reach agreement on such issues.

- 13.1.2.1 GTE shall provide AT&T access for testing at any interface between a GTE Network Element or combinations and AT&T equipment or facilities. Such test access shall be sufficient to ensure that the applicable requirements can be tested by AT&T. This access shall be available seven (7) days per week, 24 hours per day.
- 13.1.2.2 AT&T may test any interfaces, Network Elements or Ancillary Functions and additional requirements provided by GTE pursuant to this Agreement.
- 13.1.2.3 GTE shall provide engineering data as requested by AT&T for the loop components as set forth in Sections 2, 3 and 4 of this Attachment which AT&T may desire to test. Such data shall include equipment engineering and cable specifications, signaling and transmission path data.
- 13.1.2.4 Upon AT&T's request, GTE shall provide to AT&T any office records, central office layout and design records and drawings, system engineering and other applicable documentation pertaining to a Network Element or Ancillary Function or the underlying equipment that is then providing a Network Element or Ancillary Function to AT&T.
- 13.1.2.5 GTE shall provide to AT&T upon request, any applicable test results, from GTE testing activities on a Network Element or Ancillary Function or Additional Requirement or the underlying equipment providing a Network Element or Ancillary Function or Additional Requirements to AT&T. AT&T may review such testing results and may notify GTE of any deficiencies that are detected.
- 13.1.2.6 GTE shall temporarily provision selected Local Switching features for testing. Within 60 days of the Effective Date of this Agreement AT&T and GTE shall mutually agree on the procedures to be established between GTE and AT&T to expedite such provisioning processes for feature testing.
- 13.1.2.7 Upon AT&T's request, GTE shall provide technical staff to meet with AT&T representatives to provide required support for Cooperative Testing.

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- 13.1.2.8 Dedicated Transport and Loop Feeder may experience alarm conditions due to in-progress tests. GTE shall not remove such facilities from service without obtaining AT&T's prior approval.
- 13.1.2.9 GTE shall conduct tests or maintenance procedures on Network Elements or Ancillary Functions or on the underlying equipment that is then providing a Network Element or Ancillary Function, that may cause a service interruption or degradation if such tests and procedures are at a time that is mutually acceptable to AT&T and GTE.
- 13.1.2.10 GTE shall provide a single point of contact to AT&T that is available 7 days per week, 24 hours per day for trouble status, sectionalization, resolution, escalation, and closure. Such staff shall be adequately skilled to allow expeditious problem resolution.
- 13.1.2.11 GTE shall provide to AT&T electronic access to 105 responders, 100-type test lines, or 102-type test lines associated with any circuits under test.
- 13.1.2.12 GTE shall participate in Cooperative Testing with AT&T upon AT&T's request to test any operational interface or process used to provide Network Elements, Ancillary Functions or Services to AT&T.
- 13.1.2.13 AT&T and GTE shall endeavor to complete Cooperative Testing expeditiously.
- 13.1.2.14 During Cooperative Testing, GTE provisioning processes shall be enhanced to deliver Network Elements and Ancillary Functions and any Additional Requirements to AT&T in shorter intervals than during subsequent normal service periods.
- 13.1.2.15 GTE shall participate in Cooperative Testing requested by AT&T whenever it is deemed necessary by AT&T to insure service performance, reliability and customer serviceability.
- 13.1.2.16 AT&T may accept or reject the Network Element ordered by AT&T if upon completion of cooperative acceptance testing, the tested Network Element does not meet the requirements stated herein.

13.2 **Performance**

13.2.1 **Scope:**

This section addresses performance requirements for Network Elements and Ancillary Functions to provide local service. It includes requirements for the reliability and availability of Network Elements and Ancillary Functions, and quality parameters such as transmission quality (analog and digital), and speed (or delay). In addition, an overview of service performance requirements is given.

- 13.2.1.1 The General Performance Requirements in this section apply to all aspects of Network Elements and Ancillary Functions. Additional requirements are given in this performance section and in the individual Network Elements sections.
- 13.2.1.2 GTE shall work cooperatively with AT&T to determine appropriate performance allocations across Network Elements.
- 13.2.2 GTE shall provide performance equal to or better than all of the requirements set forth in the following technical references:
- 13.2.3 GTE shall provide real-time, remote data access to performance monitoring and alarm data on events affecting (or potentially affecting) AT&T's traffic.
- 13.2.3.1 **Bell Communications Research, Inc. Documents**
- 13.2.3.1.1 FR-64, *LATA Switching Systems Generic Requirements (LSSGR)*. This document contains 117 Technical References and Generic Requirements. Sections provide the requirements for local switching systems (also referred to as end offices) that serve customers' lines. Some modules of the LSSGR are also referenced separately in this document.
- 13.2.3.1.2 TR-NWT-000499, Issue 5, Rev 1, April 1992, *Transport Systems Generic Requirements (TSGR): Common Requirements*.
- 13.2.3.1.3 TR-NWT-000418, Issue 2, December 1992, *Generic Reliability Assurance Requirements For Fiber Optic Transport Systems*.
- 13.2.3.1.4 TR-NWT-000057, Issue 2, January 1993, *Functional Criteria for Digital Loop Carriers Systems*.
- 13.2.3.1.5 TR-NWT-000507, Issue 5, December 1993, *LSSGR - Transmission, Section 7*.

- 13.2.3.1.6 GR-303-CORE, Issue 1, September 1995, *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface.*
- 13.2.3.1.7 GR-334-CORE, Issue 1, June 1994, *Switched Access Service: Transmission Parameter Limits and Interface Combinations.*
- 13.2.3.1.8 TR-NWT-000335, Issue 3, May 1993, *Voice Grade Special Access Services - Transmission Parameter Limits and Interface Combinations.*
- 13.2.3.1.9 TR-TSY-000529, Issue 2, July 1987, *Public Safety - LSSGR.*
- 13.2.3.1.10 GR-1158-CORE, Issue 2, October 1995, *OSSGR Section 22.3: Line Information Database.*
- 13.2.3.1.11 TR-TSY-000511, Issue 2, July 1987, *Service Standards, a Module (Section 11) of LATA Switching Systems Generic Requirements (LSSGR, FR-NWT-000064).*
- 13.2.3.1.12 TR-NWT-000393, January 1991, *Generic Requirements for ISDN Basic Access Digital Subscriber Lines.*
- 13.2.3.1.13 TR-NWT-000909, December 1991, *Generic Requirements and Objectives for Fiber In The Loop Systems.*
- 13.2.3.1.14 TR-NWT-000505, Issue 3, May 1991, *LSSGR Section 5, Call Processing.*
- 13.2.3.1.15 FR-NWT-000271, 1993, *Operator Services Systems Generic Requirements (OSSGR).*
- 13.2.3.1.16 TR-NWT-001156, Issue 2, July 1993, *OSSGR Operator Services Systems Generic Requirements, Section 21, Operator Subsystem.*
- 13.2.3.1.17 SR-TSY-001171, Issue 1, January 1989, *Methods and Procedures for System Reliability Analysis.*
- 13.2.3.1.18 *Bellcore Telecommunications Transmission Engineering*, 3rd Ed, 1990.
- 13.2.3.2 **ANSI Standards**
  - 13.2.3.2.1 ANSI T1.512-1994, *Network Performance - Point-to-Point Voice-Grade Special Access Network Voiceband Data Transmission Objectives.*
  - 13.2.3.2.2 ANSI T1.506-1990, *Network Performance - Transmission Specifications for Switched Exchange Access Network.*

- 13.2.3.2.3 ANSI T1.508-1992, Telecommunications - Network Performance - Loss Plan for Evolving Digital Networks. Also supplement T1.508a-1993.
- 13.2.3.2.4 ANSI T1.101-1994, Digital Synchronization Network Plan.
- 13.2.3.3 **TIA/EIA Standards**
  - 13.2.3.3.1 Requirements not specifically addressed here shall be found in the documents listed in Electronic Industries Association/Telecommunications Industries Association Standards and Engineering Publications.
  - 13.2.3.3.2 TIA/EIA TSB-37A, Telephone Network Transmission Model for Evaluating Modem Performance.
  - 13.2.3.3.3 TIA/EIA TSB-38, Test Procedure for Evaluation of 2-wire 4 kHz Voiceband Duplex Modems.
- 13.2.3.4 **IEEE Standards**
  - 13.2.3.4.1 IEEE Standard 743-1984, IEEE Standard Methods and Equipment for Measuring Transmission Characteristics of Analog Voice Frequency Circuits.
  - 13.2.3.4.2 ANSI/IEEE Standard 820-1984, Telephone Loop Performance Characteristics.
- 13.2.3.5 **AT&T Standards**
  - 13.2.3.5.1 Outside Plant Engineering Handbook, August 1994.
  - 13.2.3.5.2 AT&T Pub. 60220, Issue 1, April 1991, 5ESS OSPS Interface Technical Specification for Domestic Toll And Assistance Applications.
  - 13.2.3.5.3 AT&T Technical Reference TR 43202, May 1985, AT&T Analog Voice Total and Coordinated Services.
  - 13.2.3.5.4 AT&T Technical Reference TR 41458, April 1990, Special Access Connection to the AT&T Network.
  - 13.2.3.5.5 AT&T Technical Reference TR 62415, June 1989, Access Specification For High Capacity (DS1/DS3) Dedicated Digital Service. Also TR 62415A2 November 1990, and TR 62415A3 July 1992 which are addendae to TR 62415.

- 13.2.3.5.6 AT&T Technical Reference TR 54016, September 1989, Requirements For Interfacing Digital Terminal Equipment To Services Employing The Extended Superframe Format.
- 13.2.3.5.7 AT&T Technical Reference TR 62411, December 1990, ACCUNET T1.5 Service Description And Interface Specification. Also Addendum 1 March 1991 and Addendum 2 October 1992.
- 13.2.3.5.8 AT&T Technical Reference TR 62421, December 1989, ACCUNET Spectrum of Digital Services Description And Interface Specification. Also TR 62421A Addendum 2 November 1992.
- 13.2.3.5.9 AT&T Data Communications Technical Reference TR 62310, August 1993, DS0 Digital Local Channel Description And Interface Specification. Also Addendum 2 November 1992.
- 13.2.3.5.10 AT&T Technical Reference TR 54014, 1992, ACCUNET T45 and T45 Reserved Services - Service Description And Interface Specification.
- 13.2.3.5.11 AT&T Technical Reference TR 54018, most current issue, ACCUNET T155 Service Description And Interface Specification.

#### 13.2.4 **Services and Capabilities**

13.2.4.1 All Network Elements shall provide performance sufficient, in combination with other Network Elements, to provide the following applications in accordance with the requirements of this document:

- 13.2.4.1.1 All types of voice services.
- 13.2.4.1.2 All types of voice-band data modem connections up to and including 28.8 kbps V.34.
- 13.2.4.1.3 All types of FAX transmissions up to and including 14.4 kbps group 3.
- 13.2.4.1.4 All CLASS/LASS features.
- 13.2.4.1.5 All Operator Systems.
- 13.2.4.2 The following capabilities shall be provided as applicable:
  - 13.2.4.2.1 ISDN BRI
  - 13.2.4.2.2 ISDN PRI

- 13.2.4.2.3 Switched Digital Data
- 13.2.4.2.4 Non-Switched Digital Data
- 13.2.4.2.5 Any types of Video applications that a customer may order
- 13.2.4.2.6 Any Coin Services the customer may order
- 13.2.4.2.7 Frame Relay and ATM
- 13.2.4.2.8 Private Line Services
- 13.2.5 Specific Performance Requirements for Network Elements and Ancillary Functions
  - 13.2.5.1 The following sections itemize performance parameters for Network Elements and Ancillary Functions. GTE shall provide performance equal to or better than all of the requirements set forth in this Section. Unless noted otherwise, requirements and objectives are given in terms of specific limits. This means that all tests (acceptance and ongoing performance) shall meet the limit(s) to satisfy the requirement.
  - 13.2.5.2 **Performance Allocation** Transmission path impairments may be classified as either analog or digital, and will depend on the nature of the signal transmitted across the Network Element. Analog impairments are introduced on any analog portion of the loop, typically between the NID portion of Loop Distribution and the analog to digital (A/D) conversion, and are usually correlated with the length of the physical plant. Digital impairments are introduced by A/D conversion and by interfaces between digital Network Elements. In addition, noise can be introduced by either analog transmission or the A/D conversion.
  - 13.2.5.3 **Loop Combination Architecture Constraints**
    - 13.2.5.3.1 The following constraints will limit not only the variety of Loop Combination architectures that may be considered, but also the architectures GTE may consider to deliver any Ancillary Function or Network Element. These constraints apply to the entire path between the NID portion of Loop Distribution and the GTE switch. Any exceptions to these restrictions shall be specifically requested or approved by AT&T in writing.
      - 13.2.5.3.1.1 No more than 1 A-D conversion.

- 13.2.5.3.1.2 No more than 1, 2-to-4-wire hybrid.
- 13.2.5.3.1.3 No voice compression.
- 13.2.5.3.1.4 No echo cancelers or suppressers.
- 13.2.5.3.1.5 One digital loss pad per PBX.
- 13.2.5.3.1.6 No digital gain.
- 13.2.5.3.1.7 No additional equipment that might significantly increase intermodulation distortion.

#### 13.2.5.4 **Transmission Impairments**

13.2.5.4.1 **Analog Impairments** Analog impairments are those introduced on portions of the end-to-end circuit on which communications signals are transmitted in analog format. These portions of the transmission path would typically be between NID and an A/D conversion, most commonly on the metallic loop. The performance on the analog portion of a circuit is typically inversely proportional to the length of that circuit.

##### 13.2.5.4.1.1 **Loss**

13.2.5.4.1.1.1 Electrical loss is measured using a 1004 Hz 0.0dB one Milliwatt 900 ohm test tone.

13.2.5.4.1.1.2 Off-hook electrical loss between the NID and the switch shall be no more than 8.0 dB for any line, and the mean value for all lines shall be 3.5 dB  $\pm$  0.5 dB. On-hook electrical loss between the NID and the switch shall be no more than 4.0 dB above the off-hook electrical loss for any line.

##### 13.2.5.4.1.2 **Idle Channel Circuit Noise**

13.2.5.4.1.2.1 Idle channel circuit noise (C-message) is added by analog facilities, by the A/D conversion of signals, by digital processing equipment (e.g. echo cancelers, digital loss pads), robbed bit signaling, and errors on digital facilities.

13.2.5.4.1.2.2 Idle channel circuit noise shall be less than or equal to 18 dB<sub>BrnC</sub>.

##### 13.2.5.4.1.3 **Talker Echo**

13.2.5.4.1.3.1 The primary source of echo is improper impedance-matching at the 2-to-4 wire hybrid in the GTE network. The impact on customer perception is a function of both echo return loss and delay.

13.2.5.4.1.3.2 Echo Return Loss (ERL) shall be greater than 26dB to a standard termination (900 ohms, 2.16  $\mu$ Fd), and greater than 14 dB to a telephone set off-hook. Singing Return Loss (SRL) shall be greater than 21dB to a standard termination, and greater than 11 dB to a telephone set off-hook.

**13.2.5.4.1.4 Listener Echo**

Listener echo is a double reflection of a transmitted signal at two different impedance mismatches in the end-to-end connection. While in extreme cases it can degrade voice transmission performance, listener echo is primarily an issue for voiceband data. The requirements on Talker Echo shall apply to Listener Echo.

**13.2.5.4.1.5 Propagation and Processing Delay**

13.2.5.4.1.5.1 Propagation delay is the delay involved in transmitting information from one location to another. It is caused by processing delays of equipment in the network and delays associated with traveling across transmission facilities.

13.2.5.4.1.5.2 GTE shall cooperate with AT&T to limit total service propagation and processing delay to levels at parity with that within the GTE local network.

**13.2.5.4.1.6 Signal-to-Noise Ratio**

13.2.5.4.1.6.1 The Signal-to-Noise Ratio (S/N) is a critical parameter in determining voiceband data performance. It is typically measured with a 1004 Hz tone.

13.2.5.4.1.6.2 GTE must provide on the Loop Combination a signal-to-noise ratio of at least 37 dB between the NID and the end office.

**13.2.5.4.1.7 C-Notched Noise**

The requirements for Signal-to-Noise Ration shall apply to C-Notched Noise.

**13.2.5.4.1.8 Attenuation Distortion**

- 13.2.5.4.1.8.1 Attenuation distortion, also known as frequency distortion or gain slope, measures the variations in loss at different frequencies across the voice frequency spectrum (200 Hz - 3400 Hz). It is measured by subtracting the loss at 1004 Hz from the loss at the frequency of interest.
- 13.2.5.4.1.8.2 Attenuation distortion from the NID to the switch shall be within the range  $\pm 0.5$  dB for frequencies between 304 and 3004 Hz; from the switch to NID attenuation distortion shall be within the range  $\pm 0.5$  dB for frequencies between 204 Hz and 3004 Hz. In addition, attenuation distortion shall remain within the range +1dB/-3dB for frequencies between 200 Hz and 3500 Hz.
- 13.2.5.4.1.9 **Envelope Delay Distortion**
- 13.2.5.4.1.9.1 Envelope Delay Distortion (EDD) measures the difference in transit time of signals at different frequencies. EDD is measured relative to the transit time of a 1704 Hz. tone, and is given in microseconds. EDD is used as an approximation of the group delay of the channel.
- 13.2.5.4.1.9.2 EDD shall be: 1704 Hz to 604 Hz --  $\leq 350$   $\mu$ sec.; 1704 Hz to 2804 Hz --  $\leq 195$   $\mu$ sec.; 1704 Hz to 204 Hz --  $\leq 580$   $\mu$ sec.; 1704 Hz to 3404 Hz --  $\leq 400$   $\mu$ sec.
- 13.2.5.4.1.10 **Phase Jitter**
- 13.2.5.4.1.10.1 Phase jitter measures the unwanted angular modulation of a signal. It is caused by noise or the actual modulation of the signal by another unwanted signal. It displaces the zero crossings of a signal. It is measured in terms of peak-to-peak deviations of a 1004 Hz. tone from its nominal zero crossings, and in a particular frequency band (20-300 Hz and either 4-300 Hz or 2-300 Hz). Phase jitter impacts voiceband data performance and can make modems more susceptible to other impairments, including noise.
- 13.2.5.4.1.10.2 From the NID to the interexchange carrier point of termination, phase jitter shall be  $<1.5^\circ$  point-to-point in the 20-300 Hz band, and  $<1.8^\circ$  point-to-point in the 4-300 Hz. band.
- 13.2.5.4.1.11 **Amplitude Jitter**
- 13.2.5.4.1.11.1 Amplitude jitter is any deviation of the peak value of a 1004 Hz signal from its nominal value. Excessive amounts can impair voiceband data

performance. It is primarily caused by noise but can also be caused by phase jitter, gain hits, or single frequency interference.

13.2.5.4.1.11.2 In NID-interexchange carrier point of termination,  $\leq 2.5\%$  of amplitude jitter is permitted in the 20-300 Hz band and  $\leq 2.9\%$  in the 4-300 Hz band.

#### 13.2.5.4.1.12 Intermodulation Distortion

13.2.5.4.1.12.1 Intermodulation distortion (IMD) measures non-linear distortions of a signal. It compares the power of harmonic tones to the power of the transmitted tones. It is measured for both the 2nd and 3rd harmonics of the transmitted tones. IMD is caused by compression or clipping and can impair voiceband data performance.

13.2.5.4.1.12.2 Both 2nd and 3rd order IMD between the NID and end office must be  $\geq 52\text{dB}$ .

#### 13.2.5.4.1.13 Impulse Noise

13.2.5.4.1.13.1 Impulse noise is a sudden and large increase in noise on a channel for a short duration of time. Impulse noise is measured as a count of the number of times a noise threshold is exceeded during a given time period (typically 5 or 15 minutes). It is caused by protection switching, maintenance activities, electromechanical switching systems, digital transmission errors, and line coding mismatches. Impulse noise sounds like clicking noises or static on voice connections. Impulse noise impairs voiceband data performance.

13.2.5.4.1.13.2 The NID to interexchange carrier point of termination portions of connections shall introduce no impulse noise events within 6dB of the received signal power on 93% of all 15 minute connections. In addition, there shall be no more than 1 impulse noise event within 6 dB of the received signal power during any 30-minute period.

#### 13.2.5.4.1.14 Phase Hits

13.2.5.4.1.14.1 Phase hits are a sudden change in the phase of a signal lasting at least 4 msec. Phase hits are measured using a threshold which indicates how much the phase of the signal has changed with respect to its nominal phase. Phase hits are caused by protection switching and slips or other synchronization errors. Phase hits can impair voiceband data performance.

13.2.5.4.1.14.2 Between the NID and interexchange carrier point of termination, 99.75% of all 15-minute connections shall have no phase hits exceeding 10°. In addition, there shall be no more than 1 phase hit exceeding 10° in any 30-minute period.

#### 13.2.5.4.1.15 Gain Hits

13.2.5.4.1.15.1 Gain hits are sudden changes in the level of a signal that last at least 4 msec. Gain hits are measured against a threshold of typically 2-5 dB relative to the signal's nominal level. Gain hits are usually caused by protection switches and can impair voiceband data performance.

13.2.5.4.1.15.2 Between the NID and the interexchange carrier point of termination, 99.5% of all 15-minute connections shall have no gain hits exceeding 3 dB. In addition, there shall be no more than 1 gain hit exceeding 3 dB in any 30-minute period.

#### 13.2.5.4.1.16 Dropouts

13.2.5.4.1.16.1 Dropouts are drops in the level of a signal of 12 dB or more for at least 4 msec. They are caused by protection switching events, radio fading, and conditions causing digital carrier systems to lose frame. Dropouts are critical for voiceband data performance but, if severe enough, will also affect voice quality.

13.2.5.4.1.16.2 Between the NID and the interexchange carrier point of termination, 99.9% of all 15-minute connections shall have no dropouts and in addition, no connection shall suffer more than 1 dropout in any 60-minute period.

#### 13.2.5.4.1.17 Frequency Shift

13.2.5.4.1.17.1 Frequency shift measures any frequency changes that occur when a signal is transmitted across a channel. It is typically measured using a 1004 Hz tone. Frequency shift has very little impact on voice or voiceband data performance; however, round-trip frequency shifts can affect the ability of echo cancelers to remain converged.

13.2.5.4.1.17.2 No more than 0.2 Hz frequency shift shall be on any connection. In addition, 99.5% of all calls shall have frequency shift < 0.1 Hz.

#### 13.2.5.4.1.18 Crosstalk

13.2.5.4.1.18.1 Crosstalk is the presence of signals from other telephone connections on a circuit. Crosstalk can be either intelligible, when speech from other connections can be heard and understood, or unintelligible. Crosstalk is caused by inter-channel interference on the transmission system. Crosstalk is difficult to measure: it requires correlating signals on different circuits or using human listeners to identify its presence. Trouble reports may be used to estimate the probability of crosstalk.

13.2.5.4.1.18.2 99% of Loop Combinations shall have probability  $\leq 0.1\%$  of experiencing crosstalk exceeding -65 dBm0.

#### 13.2.5.4.1.19 Clipping

13.2.5.4.1.19.1 Clipping occurs when part of a transmitted signal is dropped and does not reach the receiving portion on a connection. It can be caused by Digital Speech Interpolation (DSI) equipment used in Digital Circuit Multiplication Systems (DCMS) which increase the amount of traffic that transmission facilities carry, and by echo cancelers or echo suppressers.

13.2.5.4.1.19.2 No clipping incidents shall occur on any call.

#### 13.2.5.4.2 Digital Impairments

Digital impairments occur in the signal wherever it is transmitted in digital format. These errors are usually introduced upon conversion of the signal from analog to digital, as well as at interfaces between digital components. While many digital impairments have little impact on subjective voice quality, they can impact voiceband data performance.

##### 13.2.5.4.2.1 Signal Correlated Distortion

13.2.5.4.2.1.1 Signal correlated distortion (SCD) is unwanted noise or distortion introduced into a signal through the conversion of a signal from analog to digital format or through digital processing that changes the transmitted signal. SCD affects performance when a sign is being transmitted. The primary sources of SCD are signal encoders, echo cancelers, digital loss pads, and robbed bit signaling. SCD affects both voice and voiceband data performance.

13.2.5.4.2.1.2 The NID-to-end-office connection shall allow:

13.2.5.4.2.1.2.1 A maximum of 1 A/D conversion, using 64Kbps  $\mu$ -law ( $\mu=255$ ) PCM;

13.2.5.4.2.1.2.2 No voice compression;

13.2.5.4.2.1.2.3 No echo cancellation; and

13.2.5.4.2.1.2.4 Robbed bit signaling only if SS7 or ISDN are not used.

**13.2.5.4.2.2 Slips**

13.2.5.4.2.2.1 Slips occur when a frame of digital data is either deleted or repeated because of differences in the clocks used to synchronize digital facilities. Slips sound like clicks or pops on voice calls and have major impact on voiceband data performance.

13.2.5.4.2.2.2 The NID-to-interexchange carrier point of termination portion of connections shall have fewer than 0.45 slips every 24 hours on average.

**13.2.5.4.2.3 Digital Timing Jitter and Wander**

13.2.5.4.2.3.1 Digital timing jitter is the unwanted phase modulation of digital signals at rates above 10 Hz. Wander is the unwanted phase modulation of digital signals at rates below 10 Hz. Digital timing jitter is caused by imperfections in the timing recovery process of repeaters and the stuffing synchronization process used by multiplexer/demultiplexers. Wander is caused by slowly varying changes in digital signal phase due to clock frequency offset and drift, changes in propagation delay of terrestrial facilities due to temperature changes and changes in the distance of satellites from the earth. These events have a major impact on voiceband data performance.

13.2.5.4.2.3.2 The maximum digital timing jitter allowed in the 10 Hz to 8 kHz frequency band at any network interface or any terminal equipment in the network is 5 Unit Intervals (UI). The maximum digital timing jitter allowed in the 8 kHz to 40 kHz frequency band is 0.1 UI. The objective for wander is less than 28 UI at any network interface or terminal equipment.

**13.2.5.4.2.4 DS-1 Errored Seconds**

13.2.5.4.2.4.1 An Errored Second (ES) on a DS-1 facility is any second during which at least 1 bit is in error. The impact of an ES on performance depends on the number of errors that occur during a second. Typically, voice performance is not significantly impacted by ES but they can cause errors in voiceband data transmissions.

13.2.5.4.2.4.2 Each GTE network shall have less than 20 ESs per 24 hour period.

**13.2.5.4.2.5 DS-1 Severely Errored Seconds**

13.2.5.4.2.5.1 A severely Errored Second (SES) is any second during which a DS-1 has an error rate exceeding 0.001. An SES can be caused by a loss of framing, a slip, or a protection switch. SESs have impacts on both voice and voiceband data performance. For voice, an SES will sound like a burst of noise or static. SESs that occur during a voiceband data transmission cause a significant burst of errors and can cause modems to retrain.

13.2.5.4.2.5.2 The digital portion of each NID to POP connection shall have less than 2 SESs per 24 hour period).

**13.2.5.4.2.6 Short Failure Events**

13.2.5.4.2.6.1 A Short Failure Event (SFE) is a Loss of Frame (LOF) event of less than two minutes' duration. An LOF event is declared when, on detection of a Loss of Signal (LOS) or Out-of-Frame (OOF), a rise-slope-type integration process starts that declares a LOF after  $2.5 \pm 0.5$  sec. of continuous LOS or OOF. If the LOS or OOF is intermittent, the integration process shall decay at a slope of  $1/5$  the rise slope during the period when the signal is normal. Thus, if the ratio of a LOS or OOF to a normal signal is greater than  $1/2$ , a LOF will be declared. A LOS condition shall be declared when the Network Channel Terminating Equipment has determined that  $175 \pm 75$  successive pulse positions with no pulses of either positive or negative polarity have occurred. An OOF condition shall be declared when either Network equipment or Digital Terminal Equipment detects errors in the framing pattern.

13.2.5.4.2.6.2 There shall be fewer than 1 SFE per month.

**13.2.5.5 Service Availability and Reliability**

Availability refers to the time period during which the service is up and usable for its intended purpose. Reliability refers to the probability that a task will be completed successfully, given that it is successfully begun.

**13.2.5.5.1 Blocked Calls**

13.2.5.5.1.1 Blocking is the fraction of call origination attempts denied service during a stated measurement period. Blocking occurs because of competition for limited resources within the network.

- 13.2.5.5.1.2 For intraLATA toll service as well as for local exchange service, the blocking level from originating network interface (NID) to terminating NID shall not exceed 1% in any hour, except under conditions of service disruption. For access to or egress from the AT&T long distance network, the blocking rate shall not exceed 0.5% in any hour, except under conditions of service disruption.
- 13.2.5.5.2 **Blocked Dial Tone**
- 13.2.5.5.2.1 Blocked dial tone occurs when the subscriber does not receive dial tone within 3 seconds of going off-hook.
- 13.2.5.5.2.2 Customers shall not experience more than 0.1% dial tone blocking during average busy season busy hour (ABSBH).
- 13.2.5.5.3 **Downtime**
- Downtime is the period of time that a system is in a failed state.
- 13.2.5.5.3.1 The average downtime for all subscriber Loop Combinations shall be less than 49 minutes per year. The maximum downtime for 99% of all subscriber Loop Combinations shall be less than 74 minutes per year.
- 13.2.5.5.3.2 The average downtime for an end office switch shall be less than 3 minutes per year. The average downtime for individual trunks shall be less than 28 minutes per year. The average downtime for digital trunk groups shall be less than 20 minutes per year. The average downtime for an individual line appearance at the switch shall be less than 28 minutes per year. The average downtime for a Remote Terminal (RT) shall be less than 17 minutes per year. The average downtime for an individual line on a Remote Terminal (RT) shall be less than 13 minutes per year.
- 13.2.5.5.3.3 The mean time to repair (MTTR) of any equipment at an attended site shall be less than 3 hours. The mean time to repair (MTTR) of any equipment at an unattended site shall be less than 4 hours. 95% of all repairs to the network interface (NID) shall be completed within 24 hours.
- 13.2.5.5.3.4 There shall be no downtime due to power failures at the switch.
- 13.2.5.5.3.5 The probability of a stable call being cut off shall be less than 20 cutoffs per one million 1 minute calls.

13.2.5.5.3.6 The rate of ineffective machine attempts at the end office shall be less than 0.0005 (5 failures per 10,000 call attempts).

13.2.5.5.3.7 GTE shall meet all requirements for private line services in TR-NWT-000335, ANSI T1.512-1994, and AT&T Technical References as listed in this Section 13.2.

**13.2.5.5.4 Dial Tone Delay**

13.2.5.5.4.1 Dial-Tone Delay is the time period between a customer off-hook and the receipt of dial tone from an originating end office. Dial-Tone Delay has a significant effect on customer opinion of service quality.

13.2.5.5.4.2 The average dial-tone delay shall not exceed 0.6 seconds. At most 0.5% of calls during the average-season busy hour (ASBH) shall experience dial-tone delay greater than 3 seconds. At most 8% of calls during the ten-high-day busy hour (THDBH) shall experience dial-tone delay greater than 3 seconds. At most 10% of calls during the high-day busy hour (HDBH) shall experience dial-tone delay greater than 3 seconds.

**13.2.5.5.5 Dial Tone Removal**

13.2.5.5.5.1 Dial tone removal is the time between recognition of the first address digit to the removal of dial tone on the line.

13.2.5.5.5.2 The maximum dial tone removal interval shall be  $\leq 500$  milliseconds.

**13.2.5.5.6 Post Dial Delay**

13.2.5.5.6.1 Post Dial Delay (PDD) is the amount of time a caller must wait after entering or dialing the last digit of a Destination Telephone Number (DTN) before hearing a valid audible network response. The PDD for an end user is measured from the time the caller has pressed or dialed the last digit of a DTN until receipt of an audible network response.

13.2.5.5.6.2 The requirements given reflect an end-to-end CCS7 protocol for AT&T end users. Where a mixture of CCS7 and inband (MF) signaling protocols are employed, an increase in the PDD can be expected.

**13.2.5.5.6.2.1 PDD 1 - A - Intra AT&T LSO**

13.2.5.5.6.2.1.1 Intra-LSO calls do not employ external signaling protocols. The PDD for intra-LSO calls flows are dependent upon the processor cycle time and traffic load conditions. This PDD is assumed to be between

customers on the same AT&T LSO, between the Remote Switch Modules (RSMs) on the same Host, or between an RSM and 5ESS Host customers.

13.2.5.5.6.2.1.2 The objective for intra-LSO PDD is less than 310 milliseconds for 50% of all calls and less than 460 milliseconds for 95% of all calls.

**13.2.5.5.6.2.2 PDD1 - B - AT&T LSO to Another AT&T Local LSO**

13.2.5.5.6.2.2.1 The signaling protocols from an AT&T LSO to another AT&T LSO are assumed to employ out-of-band Common Channel Signaling System 7 (CCS7) format. Local calls, that is, calls from an AT&T LSO to another AT&T LSOs are assumed to have no more than one pair of Signaling Transfer Point Switches (STPSs) and no more than one data base dip.

13.2.5.5.6.2.2.2 This PDD is expected to be better than the AT&T Long Distance objective with an average PDD of  $\leq .870$  seconds with  $95\% \leq 1.34$  seconds.

**13.2.5.5.6.2.3 PDD1 - C - AT&T LSO to Other LSO**

13.2.5.5.6.2.3.1 Calls from an AT&T LSO to other LSOs are dependent upon the interface agreements between AT&T and the LSO service provider and may employ CCS7, inband (MF) or a combination of both protocols.

13.2.5.5.6.2.3.2 Calls from an AT&T LSO to another LSO via the Public Switched Telecommunications Network (PSTN), using end-to-end CCS7 signaling protocols, can expect to meet the AT&T PDD objectives of an average of 2.0 seconds with 95% in  $\leq 2.5$  seconds. Calls from an AT&T LSO via the PSTN to LSOs outside the local service area are assumed to use CCS7 signaling protocols to the AT&T #4ESS.™ The egress signaling protocols from the AT&T Switched Network (ASN) to the many different local telephone company service providers however does not necessarily utilize CCS7 signaling. There are three basic egress signaling configuration. They are:

13.2.5.5.6.2.3.2.1 Network Inter-Connect, CCS7 between AT&T and the local telephone company.

13.2.5.5.6.2.3.2.2 Inband Multifrequency (MF) signaling protocols without a GTE egress tandem in the connection.

13.2.5.5.6.2.3.2.3 Inband MF signaling protocols with a GTE egress tandem in the connection.

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13.2.4.6.3.2.3.2.3.1 Calls from an AT&T LSO to other LSOs outside the local service area are assumed to have multiple STPSs for 1+ traffic in the access and ASN portion of the connection. The egress from the ASN for 1+ traffic is again dependent upon the interface agreements in that service area and may consist of CCS7 or inband MF protocols.

13.2.4.6.3.2.3.2.3.2 Calls from an AT&T's LSO to another AT&T LSO with a mixture of CCS7 or all inband signaling protocols are expected to receive PDDs on the average of 2.9 seconds with 95% in  $\leq 6.5$  seconds.

#### 13.2.5.5.6.2.4 PDD2 - AT&T LSO to Operator Services

13.2.5.5.6.2.4.1 The signaling protocols between an AT&T LSO and the AT&T ASN 5ESS® Operator Services Position Systems (OSPS) will employ IN-band Feature Group C Modified Operator Services Multifrequency signaling format. As with 1+ traffic, the egress from the ASN to the local service providers LSO is dependent upon the interface.

#### 13.2.5.5.6.2.5 PDD2 - A - AT&T LSO to 5ESS® OSPS 0 Only

13.2.5.5.6.2.5.1 When a "0" has been entered by the customer, timing is applied in the absence of a DTMF "#". If a "#" is not entered, the objective is for the timer to expire in 4 seconds +/- 1 second. After the timer has expired, or the "#" has been entered, the average PDD shall not exceed 2.2 seconds.

#### 13.2.5.5.6.2.6 PDD2 - B - 0 Plus Calls

On calls where analysis of the first 6 digits ( area code + central office code) is required, the PDD shall not exceed 2.0 seconds on the average, and 2.5 seconds in 95% of all occurrences. For calls that require analysis of the 10-digits CALLED number and the 7 digits of calling number (ANI, e.g. Automatic Charge Quotation Service) the PDD is expected to be 4.5 seconds on the average and  $< 5.0$  seconds in 95% of all occurrences. These delays are based on the calling customer receiving a network response as described above, specifically the calling card alerting tone from the 5ESS® OSPS. The remaining call completion PDD to the DTN, after the customer has completed the Operator Service function, will take the form of the PDDs discussed in PDD1-C.

#### 13.2.5.5.6.2.7 Impact of Local Number Portability (LNP)

Local Number Portability will increase PDDs. If a call forwarding option is used as an interim solution for LNP, the delay due to additional

switching in the local access is estimated to be 0.3 seconds (mean) and 0.4 seconds (95th percentile) in addition to the PDDs described earlier. These estimates assumes CCS7 signaling between LSOs. If inband signaling is used between LSOs, the PDD will be increased by 1.9 to 3.6 (1.7+1.9) seconds compared to the PDDs provided in the section on Post Dial Delay.

#### 13.2.5.5.6.2.8 Custom Local Area Subscriber Services (CLASS)

CLASS<sup>SM</sup> features such as Calling Name Delivery can contribute to the PDD of a call. This delay is caused by the additional time (GTE option) before the ringing interval commences. This default delay is 3 seconds. Optional settings are available in 1 second intervals from 1 to 6 seconds. Calls to DTNs that have CLASS<sup>SM</sup> features, particularly with calling name delivery, can expect to experience from 1 to 6 seconds (3 seconds default) of additional PDD compared to the PDDs shown for PDD1-C.

#### 13.2.5.5.6.2.9 Partial Dial Timing

13.2.5.5.6.2.9.1 The interval between each information digit from a customer's line, until the LSO or switching system has determined that the digit string is incomplete.

13.2.5.5.6.2.9.2 For customer lines, partial dial timing shall be  $\geq 16$  seconds and  $\leq 24$  seconds. For trunks, inband signaling time-out shall be  $\geq 5$  seconds and  $\leq 20$  seconds.

#### 13.2.5.6 Local Switching

GTE shall provide performance equal to or better than the requirements for Local Switching set forth in Bellcore LSSGR TR-TSY-000511. Post dial delay for connections to AT&T local operator services shall be no worse than Operator Services provided by GTE. Additionally, post dial delay from the Operator Services to destination numbers shall be no worse than that provided by GTE. Post dial delay for connections to AT&T local directory services shall be no worse than directory services provided by GTE. Additionally, post dial delay from the directory system to destination numbers shall be no worse than that provided by GTE. Specific requirements for the Data Switching function of Local Switching are in Section 5.3. In all cases the performance of Data Switching shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between AT&T and GTE.

**13.2.5.7 Operator Systems**

Operator System connections shall comply with the requirements for the Loop Combination, Local Switching, Operator Service, and Directory Service requirements.

**13.2.5.8 Common Transport**

Specific requirements for this Network Element or Ancillary Function are in the Common Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between AT&T and GTE.

**13.2.5.9 Dedicated Transport**

Specific requirements for this Network Element are in the Dedicated Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between AT&T and GTE.

**13.2.5.10 Signaling Transfer Points**

Specific requirements for this Network Element are in the Signaling Transfer Points section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between AT&T and GTE.

**13.2.5.11 Signaling Link Transport**

Specific requirements for this Network Element are in the Signaling Link Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between AT&T and GTE.

**13.2.5.12 SCPs/Databases**

The performance requirements for databases (LNP, LIDB, E911, etc.) vary depending on the database and the application(s) it supports. Database-specific performance requirements are included in the sections addressing individual Network Elements and in applicable Bellcore documents. In all cases, the query response time, availability, accuracy, updating capabilities, and other performance parameters shall

at least be at parity with those services as provided to GTE or other customer.

**13.2.5.13 Tandem Switching**

Specific requirements for this Network Element are in the Tandem Switching section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between AT&T and GTE.

**13.2.6 Test and Verification**

**13.2.6.1** GTE shall permit AT&T to confirm acceptable performance of any Network Element.

**13.2.6.1.1** At AT&T's request, GTE will provide access to the Network Element sufficient for AT&T to test the performance of that Network Element to AT&T's satisfaction.

**13.2.6.1.2** At AT&T's request, GTE will perform tests to confirm acceptable performance and provide AT&T with documentation of test procedures and results acceptable to AT&T.

**13.3 Protection, Restoration, and Disaster Recovery**

**13.3.1 Scope:**

This Section refers specifically to requirements on the use of redundant network equipment and facilities for protection, restoration, and disaster recovery.

**13.3.2 Requirements**

**13.3.2.1** GTE shall provide protection, restoration, and disaster recovery capabilities at parity with those capabilities provided for their own services, facilities and equipment (e.g., equivalent circuit pack protection ratios, facility protection ratios).

**13.3.2.2** GTE shall provide Network Elements and Ancillary Functions equal priority in protection, restoration, and disaster recovery as provided to their own services, facilities and equipment.

13.3.2.3 GTE shall provide Network Elements and Ancillary Functions equal priority in the use of spare equipment and facilities as provided to their own services, facilities and equipment.

13.3.2.4 GTE shall restore Network Elements which are specific to AT&T end user customers on a priority basis as AT&T may designate.

#### 13.4 **Synchronization**

##### 13.4.1 Definition:

Synchronization is the function which keeps all digital equipment in a communications network operating at the same average frequency. With respect to digital transmission, information is coded into discrete pulses. When these pulses are transmitted through a digital communications network, all synchronous Network Elements are traceable to a stable and accurate timing source. Network synchronization is accomplished by timing all synchronous Network Elements in the network to a stratum 1 source so that transmission from these network points have the same average line rate.

##### 13.4.2 **Technical Requirements**

The following requirements are applicable to the case where GTE provides synchronization to equipment that AT&T owns and operates within a GTE location. In addition, these requirements apply to synchronous equipment that is owned by GTE and is used to provide a Network Element to AT&T.

13.4.2.1 The synchronization of clocks within digital networks is divided into two parts: intra-building and inter-building. Within a building, a single clock is designated as the Building Integrated Timing Supply (BITS), which provides all of the DS1 and DS0 synchronization references required by other clocks in such building. This is referred to as intra-building synchronization. The BITS receives synchronization references from remotely located BITS. Synchronization of BITS between buildings is referred to as inter-building synchronization.

13.4.2.2 To implement a network synchronization plan, clocks within digital networks are divided into four stratum levels. All clocks in strata 2, 3, and 4 are synchronized to a stratum 1 clock, that is, they are traceable to a stratum 1 clock. A traceable reference is a reference that can be traced back through some number of clocks to a stratum 1 source. Clocks in different strata are distinguished by their free running accuracy

or by their stability during trouble conditions such as the loss of all synchronization references.

#### 13.4.2.2.1 Intra-Building

- 13.4.2.2.1.1 Within a building, there are different kinds of equipment that require synchronization at the DS1 and DS0 rates. Synchronization at the DS1 rate is accomplished by the frequency synchronizing presence of buffer stores at various DS1 transmission interfaces. Synchronization at the DS0 rate is accomplished by using a composite clock signal that phase synchronizes the clocks. Equipment requiring DS0 synchronization frequently does not have adequate buffer storage to accommodate the phase variations among different equipment. Control of phase variations to an acceptable level is accomplished by externally timing all interconnecting DS0 circuits to a single clock source and by limiting the interconnection of DS0 equipment to less than 1,500 cable feet. Therefore, a BITS shall provide DS1 and composite clock signals when appropriate. The composite signal is a 64-kHz 5/8<sup>th</sup> duty cycle, return to zero with a bipolar violation every eighth pulse (B8RZ).

#### 13.4.2.2.2 Inter-Building

- 13.4.2.2.2.1 GTE shall provide inter-building synchronization at the DS1 rate, and the BITS shall accept the primary and secondary synchronization links from BITS in other buildings. From hierarchical considerations, the BITS shall be the highest stratum clock within the building and GTE shall provide operations capabilities (this includes, but is not limited to: synchronization reference provisioning; synchronization reference status inquiries; timing mode status inquiries; and alarm conditions).

#### 13.4.3 Synchronization Distribution Requirements

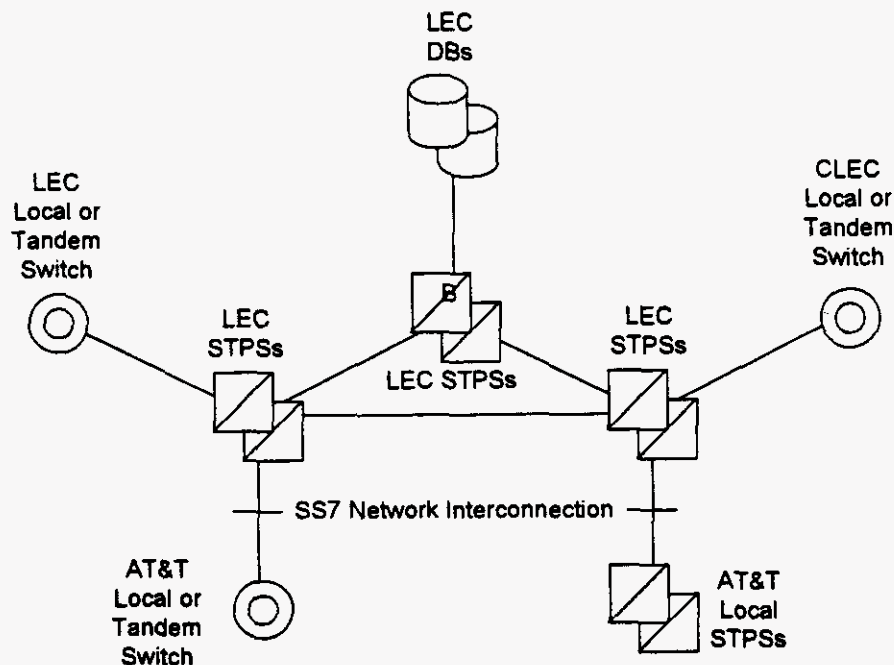
- 13.4.3.1 Central office BITS shall contain redundant clocks meeting or exceeding the requirements for a stratum 2 clock as specified in ANSI T1.101-1994 and Bellcore *TR-NWT-001244 Clocks for the Synchronized Network: Common Generic Criteria*.
- 13.4.3.2 Central office BITS shall be powered by primary and backup power sources.
- 13.4.3.3 If both reference inputs to the BITS are interrupted or in a degraded mode (meaning off frequency greater than twice the minimum accuracy of the BITS, loss of frame, excessive bit errors, or in Alarm Indication Signal), then the stratum clock in the BITS shall provide the necessary

bridge in timing to allow the network to operate without a frame repetition or deletion (slip free) with better performance than 1 frame repetition or deletion (slip) per week.

- 13.4.3.4 DS1s multiplexed into a SONET synchronous payload envelope within an STS-n (where n is defined in ANSI T1.105-1995) signal shall not be used as reference facilities for network synchronization.
- 13.4.3.5 The total number of Network Elements cascaded from the stratum 1 source shall be minimized.
- 13.4.3.6 A Network Element shall receive the synchronization reference signal only from another Network Element that contains a clock of equivalent or superior quality (stratum level).
- 13.4.3.7 GTE shall select for synchronization those facilities shown to have the greatest degree of availability (absence of outages).
- 13.4.3.8 Where possible, all primary and secondary synchronization facilities shall be physically diverse (this means the maximum feasible physical separation of synchronization equipment and cabling).
- 13.4.3.9 No timing loops shall be formed in any combination of primary and secondary facilities.
- 13.4.3.10 An Operations Support System (OSS) shall continuously monitor the BITS for synchronization related failures or degradation.
- 13.4.3.11 An OSS shall continuously monitor all equipment transporting synchronization facilities for synchronization related failures or degradation.
- 13.4.3.12 For non-SONET equipment, GTE shall provide synchronization facilities which, at a minimum, comply with the standards set forth in ANSI T1.101-1994.
- 13.4.3.13 For SONET equipment, GTE shall provide synchronization facilities that have time deviation (TDEV) for integration times greater than 0.05 seconds and less than or equal to 10 seconds, that is less than or equal to 10 nanoseconds. TDEV, in nanoseconds, for integration times greater than 10 seconds and less than 1000 seconds, shall be less than 3.1623 times the square-root of the integration time. For example, for integration times of 25 seconds, TDEV shall be less than 15.8 nanoseconds.

**13.5 SS7 Network Interconnection****13.5.1.1 Definition:**

Figure 9 depicts Signaling System 7 (SS7) Network Interconnection. SS7 Network Interconnection is the interconnection of AT&T local Signaling Transfer Point Switches (STPS) and AT&T local or tandem switching systems with GTE STPSs. This interconnection provides connectivity that enables the exchange of SS7 messages among GTE switching systems and databases (DBs), AT&T local or tandem switching systems, and other third-party switching systems directly connected to the GTE SS7 network.

**Figure 9. SS7 Network Interconnection****13.5.2 Technical Requirements**

**13.5.2.1** SS7 Network Interconnection shall provide connectivity to all components of the GTE SS7 network. These include:

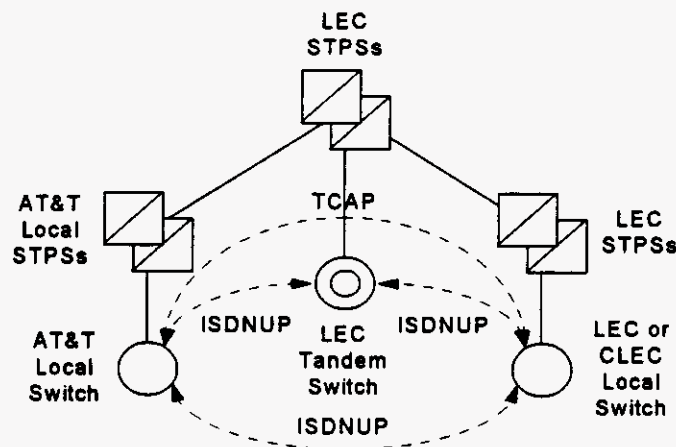
**13.5.2.1.1** GTE local or tandem switching systems;

**13.5.2.1.2** GTE DBs; and

**13.5.2.1.3** Other third-party local or tandem switching systems.

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- 13.5.2.2 The connectivity provided by SS7 Network Interconnection shall fully support the functions of GTE switching systems and DBs and AT&T or other third-party switching systems with A-link access to the GTE SS7 network.
- 13.5.2.3 In particular Figure 10 depicts a circumstance where SS7 Network Interconnection shall provide transport for certain types of Transaction Capabilities Application Part (TCAP) messages. If traffic is routed based on dialed or translated digits between an AT&T local switching system and a GTE or other third-party local switching system, either directly or via a GTE tandem switching system, then it is a requirement that the GTE SS7 network convey via SS7 Network Interconnection the TCAP messages that are necessary to provide Call Management services (Automatic Callback, Automatic Recall, and Screening List Editing) between the AT&T local STPSs and the GTE or other third-party local switch.



**Figure 10. Interswitch TCAP Signaling for SS7 Network Interconnection**

- 13.5.2.4 When the capability to route messages based on Intermediate Signaling Network Identifier (ISNI) is generally available on GTE STPSs, the GTE SS7 Network shall also convey TCAP messages using SS7 Network Interconnection in similar circumstances where the GTE switch routes traffic based on a Carrier Identification Code (CIC).
- 13.5.2.5 SS7 Network Interconnection shall provide all functions of the MTP as specified in ANSI T1.111 (Reference 13.5.13.5.4.13.5.4.2). This includes:
- 13.5.2.5.1 Signaling Data Link functions, as specified in ANSI T1.111.2;
  - 13.5.2.5.2 Signaling Link functions, as specified in ANSI T1.111.3; and
  - 13.5.2.5.3 Signaling Network Management functions, as specified in ANSI T1.111.4.
- 13.5.2.6 SS7 Network Interconnection shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112 (Reference 13.5.13.5.4.13.5.4.4). In particular, this includes Global Title Translation (GTT) and SCCP Management procedures, as specified in T1.112.4. Where the destination signaling point is a GTE switching system or DB, or is another third-party local or tandem switching system directly connected to the GTE SS7 network, SS7 Network Interconnection shall include final GTT of messages to the destination and SCCP Subsystem Management of the destination. Where the destination signaling point is an AT&T local or tandem switching system, SS7 Network Interconnection shall include intermediate GTT of messages to a gateway pair of AT&T local STPSs, and shall not include SCCP Subsystem Management of the destination.
- 13.5.2.7 SS7 Network Interconnection shall provide all functions of the Integrated Services Digital Network User Part (ISDNUP), as specified in ANSI T1.113 (Reference 13.5.13.5.4.13.5.4.5).
- 13.5.2.8 SS7 Network Interconnection shall provide all functions of the TCAP, as specified in ANSI T1.114 (Reference 13.5.13.5.4.13.5.4.6).
- 13.5.2.9 If and when Internetwork MTP Routing Verification Test (MRVT) and SCCP Routing Verification Test (SRVT) become approved ANSI standards and available capabilities of GTE STPSs, SS7 Network Interconnection shall provide these functions of the OMAP.

13.5.2.10 SS7 Network Interconnection shall be equal to or better than the following performance requirements:

13.5.2.10.1 MTP Performance, as specified in ANSI T1.111.6;

13.5.2.10.2 SCCP Performance, as specified in ANSI T1.112.5; and

13.5.2.10.3 ISDNUP Performance, as specified in ANSI T1.113.5.

**13.5.3 Interface Requirements**

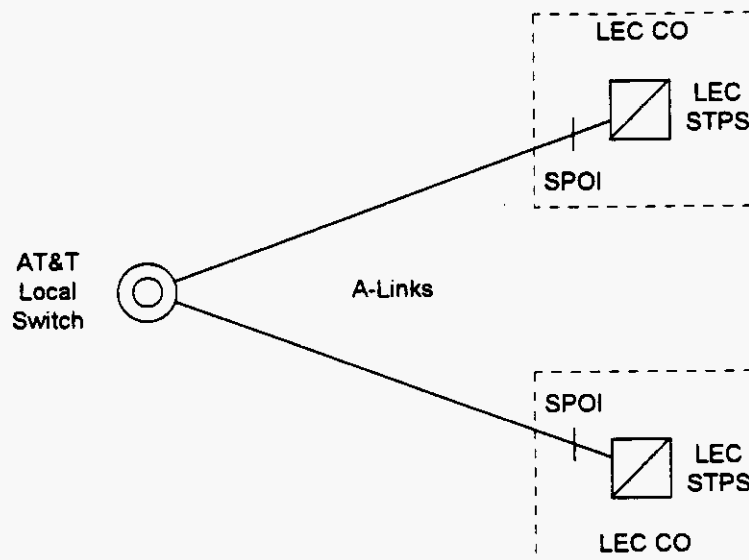
13.5.3.1 GTE shall offer the following SS7 Network Interconnection options to connect AT&T or AT&T-designated local or tandem switching systems or STPSs to the GTE SS7 network:

13.5.3.1.1 A-link interface from AT&T local or tandem switching systems; and

13.5.3.1.2 D-link interface from AT&T STPSs.

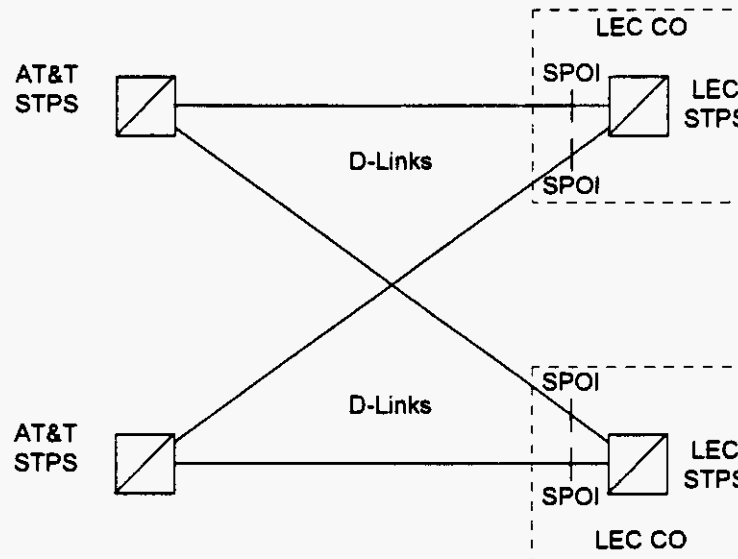
13.5.3.2 Each interface shall be provided by one or more sets (layers) of signaling links, as follows:

13.5.3.2.1 An A-link layer shall consist of two links, as depicted in Figure 11.



**Figure 11. A-Link Interface**

13.5.3.2.2 A D-link layer shall consist of four links, as depicted in Figure 12.



**Figure 12. D-Link Interface**

- 13.5.3.3 The Signaling Point of Interconnection (SPOI) for each link shall be located at a cross-connect element, such as a DSX-1, in the Central Office (CO) where the GTE STPS is located. There shall be a DS1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface. GTE shall offer higher rate DS1 signaling links for interconnecting AT&T local switching systems or STPSs with GTE STPSs as soon as these become approved ANSI standards and available capabilities of GTE STPSs.
- 13.5.3.4 GTE CO shall provide intraoffice diversity between the SPOIs and the GTE STPS, so that no single failure of intraoffice facilities or equipment shall cause the failure of both D-links in a layer connecting to a GTE STPS.
- 13.5.3.5 The protocol interface requirements for SS7 Network Interconnection include the MTP, ISDNUP, SCCP, and TCAP. These protocol interfaces shall conform to the following specifications:
- 13.5.3.5.1 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message

Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP);

- 13.5.3.5.2 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;
- 13.5.3.5.3 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and
- 13.5.3.5.4 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).
- 13.5.3.6 GTE shall set message screening parameters to block accept messages from AT&T local or tandem switching systems destined to any signaling point in the GTE SS7 network with which the AT&T switching system has a legitimate signaling relation.
- 13.5.4 SS7 Network Interconnection shall be equal to or better than all of the requirements for SS7 Network Interconnection set forth in the following technical references:
  - 13.5.4.1 ANSI T1.110-1992 American National Standard Telecommunications - Signaling System Number 7 (SS7) - General Information;
  - 13.5.4.2 ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);
  - 13.5.4.3 ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;
  - 13.5.4.4 ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);
  - 13.5.4.5 ANSI T1.113-1995 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Integrated Services Digital Network (ISDN) User Part;
  - 13.5.4.6 ANSI T1.114-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Transaction Capabilities Application Part (TCAP);

- 13.5.4.7 ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;
- 13.5.4.8 ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);
- 13.5.4.9 ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);
- 13.5.4.10 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP);
- 13.5.4.11 Bellcore GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service;
- 13.5.4.12 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;
- 13.5.4.13 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and,
- 13.5.4.14 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).
- 13.6 **Network Interconnection**
- 13.6.1 **Technical Requirements**
- 13.6.1.1 When requested by AT&T, GTE shall provide interconnections between GTE Network Elements provided to AT&T and AT&T's network at transmission rates designated by AT&T, including, but not limited to DS1, DS3, and STS-1.
- 13.6.1.2 Traffic shall be combined and routed as follows:
- 13.6.1.2.1 GTE shall provide direct trunks for intraLATA traffic (except 911, directory assistance, operator services, and other services that may require special routing) and, at AT&T's request, GTE shall allow AT&T

to route such traffic either directly to a GTE tandem or directly to a GTE GTE end-office.

- 13.6.1.2.2 At AT&T's request, GTE shall receive AT&T traffic destined to GTE Operator Systems Network Element, on trunks from an AT&T end-office or an AT&T tandem.
- 13.6.1.2.3 At AT&T's request, GTE shall receive AT&T CAMA-ANI (Centralized Automatic Message Accounting - Automatic Number identification) traffic destined to GTE B911 PSAPs, or E911 tandems, on trunks from an AT&T end-office.
- 13.6.1.2.4 At AT&T's request, GTE shall receive AT&T SS7 traffic destined to any GTE S911 tandem on trunks from an AT&T end-office.
- 13.6.1.3 When requested by AT&T and a third party carrier, GTE shall provide interconnections between AT&T's network, and the other carrier's network through the GTE network at transmission rates designated by AT&T, including, but not limited to DS1, DS3, and STS-1. GTE shall combine and route traffic to and from other local carriers and interLATA carriers through the GTE network, and at AT&T's request, GTE shall record and keep records of such traffic for AT&T billing purposes.
- 13.6.1.4 GTE shall provide two-way trunk groups for interconnections. At AT&T's request, GTE shall provide uni-directional traffic on such trunks, in either direction, effectively operating them as if they were one-way trunk groups.
- 13.6.1.5 GTE shall provision trunks without any user restrictions (e.g., option for two-way trunking, and no unnecessary trunk group fragmentation by traffic types).
- 13.6.1.6 All trunking provided by GTE shall adhere to the applicable performance requirements set forth in the "General Performance Requirements" section of this Agreement.
- 13.6.1.7 At AT&T's request, GTE shall provide for overflow routing from a given trunk group or groups onto another trunk group or groups as AT&T designates.
- 13.6.1.8 GTE and AT&T shall agree on the establishment of two-way trunk groups for the exchange of traffic for other IXC's. These trunk groups can be provided in a "meet point" arrangement.

- 13.6.1.9 Interconnection shall be made available upon AT&T's request at any technically feasible point of interface. All trunk interconnections shall be provided, including, SS7, MF, DTMF, DialPulse, PRI-ISDN, DID (Direct Inward Dialing), CAMA-ANI, and trunking necessary so that interim LNP can be provided.
- 13.6.1.10 **Trunk Interface Requirements**
- 13.6.1.10.1 **B911/E911 Trunks**
- 13.6.1.10.1.1 GTE shall allow AT&T to provide direct trunking to each GTE B911 serving end office, or GTE E911 tandem, as is appropriate for the applicable serving area. These trunks are to be provided as one-way trunks from a given AT&T end office to GTE 911 end-office or tandem.
- 13.6.1.10.1.2 GTE shall provide for overflow 911 traffic to be sent to the GTE operator services platform or, at AT&T's direction, routed directly to AT&T's operator services platform.
- 13.6.1.10.2 **S911 Trunks**
- In areas where S911 tandems are used, GTE shall allow AT&T to provide direct trunking to each GTE S911 tandem. Such SS7 trunks are to be provided as one-way trunks from a given AT&T end-office to GTE S911 tandem.
- 13.6.1.10.3 **Local Switch and Access Tandem Trunks**
- 13.6.1.10.3.1 GTE shall provide trunks groups provisioned exclusively to carry intraLATA traffic, as designated by AT&T.
- 13.6.1.10.3.2 GTE shall provide trunk groups provisioned exclusively to carry interLATA traffic, as designated by AT&T.
- 13.6.1.10.3.3 GTE shall provide SS7 trunks which provide SS7 interconnection. At AT&T's request, MF trunks may be substituted for SS7 trunks where applicable.
- 13.6.1.10.3.4 GTE shall simultaneous route calls based on dialed digits (in accordance with the standard GR-317-CORE), and Carrier Identification Code (in accordance with the standard GR-394-CORE) over a single SS7 trunk group.
- 13.6.1.10.4 **GTE Operator Services Trunk**

- 13.6.1.10.4.1 For traffic from the GTE network to AT&T for Operator Services, GTE shall provide one trunk group per NPA served by the local GTE switch.
- 13.6.1.10.4.2 GTE shall provide such trunks as one-way trunks from GTE network to the AT&T network.
- 13.6.2 Network Interconnection between GTE and AT&T shall meet or exceed all of the requirements for Network Interconnection set forth in the following technical references:
  - 13.6.2.1 GR-317-CORE, Switching System generic requirements for Call Control Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994;
  - 13.6.2.2 GR-394-CORE, Switching System generic requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994;
  - 13.6.2.3 FR-NWT-000271, OSSGR Operator Services Systems generic requirements, Bellcore, 1994 Edition; and
  - 13.6.2.4 FR-NWT-000064, LATA Switching Systems Generic Requirements (LSSGR), Bellcore, 1994 Edition.
- 13.7 **Basic 911 and E911**
  - 13.7.1 **Definition:**

Basic 911 and E911 is an additional requirement that provides a caller access to the applicable emergency service bureau by dialing a 3-digit universal telephone number (911).
  - 13.7.2 **Requirements**
    - 13.7.2.1 Basic 911 shall collect 911 calls from one or more local exchange switches that serve a geographic area. It shall then send these calls to the correct authority designated to receive such calls.
    - 13.7.2.2 E911 shall provide additional routing flexibility for 911 calls. E911 shall use customer data, contained in the Automatic Location Identification/Data Management System (ALI/DMS), to determine to which Public Safety Answering Point (PSAP) to route the call.

- 13.7.2.3 If available GTE shall offer a third type of 911 service, S911. All requirements for E911 also apply to S911 with the exception of the type of signaling used on the interconnection trunks from the local switch to the S911 tandem.
- 13.7.2.4 Basic 911 and E911 functions provided to AT&T shall be at least at parity with the support and services that GTE provides to its customers for such similar functionality.
- 13.7.2.5 Basic 911 and E911 access from Local Switching shall be provided to AT&T in accordance with the following:
- 13.7.2.5.1 GTE shall conform to all state regulations concerning emergency services;
- 13.7.2.5.2 GTE shall route calls to the appropriate PSAP.
- 13.7.2.5.3 For B911, GTE shall provide and validate customer information to the PSAPs.
- 13.7.2.5.4 For E911, GTE shall use its service order process to update and maintain customer information in the ALI/DMS data base. Through this process GTE shall provide and validate customer information resident or entered into the ALI/DMS data base.
- 13.7.2.5.5 GTE shall provide for overflow 911 traffic to be routed to GTE Operator Services or, at AT&T's discretion, directly to AT&T operator services.
- 13.7.2.6 Basic 911 and E911 access from the AT&T local switch shall be provided to AT&T in accordance with the following:
- 13.7.2.6.1 If required by AT&T, GTE shall interconnect direct trunks from the AT&T network to the B911 PSAP, or the E911 tandems as designated by AT&T. Such trunks may alternatively be provided by AT&T.
- 13.7.2.6.2 For E911, GTE, shall provide AT&T the capability to make queries to the ALI database. GTE shall provide AT&T the capability to connect a data link to the ALI database. GTE shall provide error reports from the ALI database to AT&T immediately after AT&T inputs information into the ALI database. Alternatively, AT&T may utilize GTE, to enter customer information into the database on a demand basis, and validate customer information on a demand basis.

- 13.7.2.6.3 GTE shall provide AT&T access to the Master Street and Address Guide at least at parity with the access GTE provides to itself.

**ATTACHMENT 3**  
**ANCILLARY FUNCTIONS**  
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**SERVICE DESCRIPTION: ANCILLARY FUNCTIONS****1. Introduction**

This Attachment sets forth the descriptions and requirements for Ancillary Functions that GTE agrees to offer to AT&T under this Agreement.

**2. Collocation**

Definition: Collocation is the right of AT&T to obtain dedicated space in GTE's Local Serving Office (LSO) or other GTE locations and to place equipment in such spaces to interconnect with the GTE network.

Collocation also includes GTE providing resources necessary for the operation and economical use of collocated equipment

**2.1 Technical Requirements**

2.1.1 GTE shall provide space, as requested by AT&T, to meet AT&T's needs for placement of equipment, interconnection, or provision of service pursuant to an agreement or tariff that meets the requirements in this Agreement.

2.1.2 GTE shall provide intraoffice facilities (e.g., DS0, DS1, DS3, OC3, OC12, OC48, and STS-1 terminations) as requested by AT&T to meet AT&T's need for placement of equipment, interconnection, or provision of service.

2.1.3 Other than reasonable security restrictions, where AT&T's collocated space is located in space that is partitioned separately from GTE facilities, GTE shall place no restriction on access to the AT&T collocated space by AT&T's employees and designated agents. Such space shall be available to AT&T designated agents twenty-four (24) hours per day each day of the week. Where AT&T's collocated space is located in space that is not partitioned separately from GTE's facilities, GTE shall provide AT&T designated personnel escort service to and from AT&T's collocated space. Such escort service shall be available twenty-four (24) hours per day each day of the week. In no case should any reasonable security restrictions be more restrictive than those GTE places on their own personnel.

2.1.4 AT&T may collocate the amount and type of equipment it deems necessary in its collocated space (e.g., AT&T utilizing its SONET termination equipment in the collocated space to provide a hub for OC3/OC48 rings).

2.1.5 GTE shall allow the efficient interconnection of AT&T to other carriers who have collocated space within GTE's facility (e.g., GTE shall not require AT&T to interconnect with other carriers outside of GTE's facilities).

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- 2.1.6 AT&T may select its own vendors for all required engineering and installation services associated with its collocated equipment subject to GTE's reasonable restrictions on third party vendors that GTE has decertified with good cause. GTE shall maintain and provide AT&T with a list of all such decertified vendors. Notwithstanding GTE decertification of a third party vendor, AT&T may use such vendor for work associated with its collocated equipment if such vendor is the only third party vendor reasonably available to AT&T to perform such work. In no event shall GTE require AT&T to utilize GTE's internal engineering or installation work forces for the engineering and installation of AT&T's collocated equipment.
- 2.1.7 GTE shall provide basic telephone service with a connection jack as requested by AT&T from GTE for the collocated space. Upon AT&T's request, this service shall be available at the AT&T collocated space on the day that the space is turned over to AT&T by GTE.
- 2.1.8 GTE shall provide adequate lighting, ventilation, power, heat, air conditioning, and other environmental conditions for AT&T's space and equipment. These environmental conditions shall adhere to Bell Communication Research (Bellcore) Network Equipment-Building System (NEBS) standards TR-EOP-000063 or other standards which AT&T may designate
- 2.1.9 When required by federal or state labor laws or by the relevant collective bargaining agreement, GTE shall provide access to eyewash stations, shower stations, bathrooms, and drinking water within the collocated facility on a twenty-four (24) hours per day, seven (7) days per week basis for AT&T personnel and its designated agents.
- 2.1.10 GTE shall provide all ingress and egress of fiber and power cabling to AT&T collocated spaces in compliance with AT&T's cable diversity standards. The specific level of diversity required for each site or Network Element will be provided in the collocation request.
- 2.1.11 GTE shall ensure protection of AT&T's proprietary customer information. Any collocation arrangement shall include provisions for GTE protecting AT&T's proprietary information.
- 2.1.12 GTE shall participate in and adhere to negotiated service guarantees, DMOQs, and ISO reviews.

- 2.1.13 GTE will provide answers to AT&T's Environmental, Health & Safety Questionnaire at the first contact meeting for each collocated space in each building in which collocated space is provided.
- 2.1.14 GTE shall provide AT&T with written notice five (5) business days prior to those instances where GTE or its subcontractors may be performing work in the general area of the collocated space occupied by AT&T, or in the general area of the AC and DC power plants which support AT&T equipment that is, or potentially may be, service affecting. GTE will inform AT&T by telephone of any emergency related activity that GTE or its subcontractors may be performing in the general area of the collocated space occupied by AT&T, or in the general area of the AC and DC power plants which support AT&T equipment. Notification of any emergency related activity shall be made immediately prior to the start of the activity so that AT&T can take any action required to monitor or protect its service
- 2.1.15 GTE shall construct the collocated space in compliance with AT&T's collocation request for cable holes, ground bars, doors, and convenience outlets.
- 2.1.16 AT&T and GTE will complete an acceptance walk through of all collocated space requested from GTE. Exceptions that are noted during this acceptance walk through shall be corrected by GTE within five (5) days after the walk through. The correction of these exceptions from the original collocation request shall be at GTE's expense.
- 2.1.17 GTE shall provide Telephone Equipment detailed drawings depicting the exact location, type, and cable termination requirements (i.e., connector type, number and type of pairs, and naming convention) for GTE Point of Termination Bay(s) to AT&T within thirty (30) days of AT&T's request for collocated space.
- 2.1.18 GTE shall provide Telephone Equipment detailed drawings depicting the exact path, with dimensions, for AT&T Outside Plant Fiber ingress and egress into AT&T collocated space within thirty (30) days of AT&T's request for collocated space. Such path and any areas around it in which AT&T must work to perform installation shall be free of friable asbestos, lead paint (unless encapsulated), radon and other health or safety hazards.

- 2.1.19 GTE shall provide detailed power cabling connectivity information including the sizes and number of power feeders to AT&T within ten (10) days of the acceptance of AT&T's request for collocated space.
- 2.1.20 GTE shall provide positive confirmation to AT&T when construction of AT&T collocated space is 50% completed. This confirmation shall also include confirmation of the scheduled completion and turnover dates.
- 2.1.21 In case of anticipated delays in the negotiated completion and turnover dates, AT&T may hire outside contractors' to do the work at AT&T's expense. The contractor's hired by AT&T shall meet GTE's reasonable standards.
- 2.1.22 GTE shall provide the following information to AT&T within five (5) business days of receipt of a written request from AT&T:
- 2.1.22.1 Work restriction guidelines.
- 2.1.22.2 GTE or Industry technical publication guidelines that impact the design of GTE\_collocated equipment.
- 2.1.22.3 GTE contacts (names and telephone numbers) for the following areas:
- Engineering
  - Physical & Logical Security
  - Provisioning
  - Billing
  - Operations
  - Site and Building Managers
  - Environmental and Safety
- 2.1.22.4 Escalation process for GTE representatives (names, telephone numbers and the escalation order) for any disputes or problems that might arise pursuant to AT&T's collocation.
- 2.1.23 Power as referenced in this Attachment 3 refers to any electrical power source supplied by GTE for AT&T equipment. It includes all superstructure, infrastructure, and overhead facilities, including, but not limited to, cable, cable racks and bus bars. GTE will supply power to support AT&T equipment at equipment specific DC and AC voltages. At a minimum, GTE shall supply power to AT&T at parity with that provided by GTE to itself or to any third party. If GTE performance, availability, or restoration falls below industry standards, GTE shall bring itself into

compliance with such industry standards as soon as technologically feasible.

- 2.1.23.1 Central office power supplied by GTE into the AT&T equipment area, shall be supplied in the form of power feeders (cables) on cable racking into the designated AT&T equipment area. The power feeders (cables) shall efficiently and economically support the requested quantity and capacity of AT&T equipment. The termination location shall be as requested by AT&T.
- 2.1.23.2 GTE shall provide power as requested by AT&T to meet AT&T's need for placement of equipment, interconnection, or provision of service.
- 2.1.23.3 GTE power equipment supporting AT&T's equipment shall:
  - 2.1.23.3.1 Comply with applicable industry standards (e.g., Bellcore, NEBS and IEEE) or manufacturer's equipment power requirement specifications for equipment installation, cabling practices, and physical equipment layout;
  - 2.1.23.3.2 Have redundant power feeds with physical diversity and battery back-up as required by the equipment manufacturer's specifications for AT&T equipment, or, at minimum, at parity with that provided for similar GTE equipment;
  - 2.1.23.3.3 Provide, upon AT&T's request, real time alarms that shall be set to alert GTE of any performance, environmental or other factors that impact, or potentially may impact, AT&T traffic. GTE shall immediately notify AT&T if an alarm condition exists with respect to such monitoring or if backup power has been engaged for any power supporting AT&T's equipment;
  - 2.1.23.3.4 Provide central office ground, connected to a ground electrode located within the AT&T collocated space, at a level above the top of AT&T equipment plus or minus 2 feet to the left or right of AT&T's final request; and
  - 2.1.23.3.5 Provide feeder capacity and quantity to support the ultimate equipment layout for AT&T equipment in accordance with AT&T's collocation request.
  - 2.1.23.3.6 GTE shall, within ten (10) days of AT&T's request:
    - 2.1.23.3.6.1 Provide documentation submitted to and received from contractors for any contractor bids for any work being done on behalf of AT&T (this includes, but is not limited to, power supplies, and cage construction);

- 2.1.23.3.6.2 Provide an installation sequence and access that will allow installation efforts in parallel without jeopardizing personnel safety or existing AT&T services;
- 2.1.23.3.6.3 Provide power plant alarms that adhere to Bell Communication Research (Bellcore) Network Equipment-Building System (NEBS) standards TR-EOP-000063;
- 2.1.23.3.6.4 Provide cabling that adheres to Bell Communication Research (Bellcore) Network Equipment-Building System (NEBS) standards TR-EOP-000063;
- 2.1.23.3.6.5 Provide Lock Out-Tag Out and other electrical safety procedures and devices in conformance with the most stringent of OSHA or industry guidelines.
- 2.1.23.3.7 GTE will provide AT&T with written notification within ten (10) business days of any scheduled AC or DC power work or related activity in the collocated facility that will or might cause an outage or any type of power disruption to AT&T equipment located in the GTE facility. GTE shall provide AT&T immediate notification by telephone of any emergency power activity that would impact AT&T equipment.
- 2.2 Technical References - GTE shall provide collocation in accordance with the following standards:
  - 2.2.1 Institute of Electrical and Electronics Engineers (IEEE) Standard 383, IEEE Standard for Type Test of Class 1 E Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations.
  - 2.2.2 National Electrical Code (NEC) use latest issue.
  - 2.2.3 TA-NPL-000286, NEBS Generic Engineering Requirements for System Assembly and Cable Distribution, Issue 2, (Bellcore, January 1989).
  - 2.2.4 TR-EOP-000063 Network Equipment-Building System (NEBS) Generic Equipment Requirements, Issue 3, March 1988.
  - 2.2.5 TR-EOP-000151, Generic Requirements for 24-, 48-, 130-, and 140- Volt Central Office Power Plant Rectifiers, Issue 1, (Bellcore, May 1985).
  - 2.2.6 TR-EOP-000232, Generic Requirements for Lead-Acid Storage Batteries, Issue 1 (Bellcore, June 1985).

- 2.2.7 TR-NWT-000154, Generic Requirements for 24-, 48-, 130, and 140- Volt Central Office Power Plant Control and Distribution Equipment, Issue 2, (Bellcore, January 1992).
- 2.2.8 TR-NWT-000295, Isolated Ground Planes: Definition and Application to Telephone Central Offices, Issue 2, (Bellcore, July 1992).
- 2.2.9 TR-NWT-000840, Supplier Support Generic Requirements (SSGR), (A Module of LSSGR, FR-NWT-000064), Issue 1, (Bellcore, December 1991).
- 2.2.10 TR-NWT-001275 Central Office Environment Installations/Removal Generic Requirements, Issue 1, January 1993.
- 2.2.11 Underwriters' Laboratories Standard, UL 94.

### 3. **Poles, Ducts, Conduits, Rights of Way (ROW)**

#### 3.1 **Definitions**

- 3.1.1 An "Attachment" is any placement of AT&T's facilities in or on GTE's poles, ducts, conduits, or rights of way.
- 3.1.2 A "conduit" is a tube or protected trough that may be used to house communication or electrical cables. Conduit may be underground or above ground (for example, inside buildings) and may contain one or more inner ducts.
- 3.1.3 A "duct" is a single enclosed path to house facilities to provide telecommunications services.
- 3.1.4 The terms "facility" and "facilities" refers to any property, equipment, or items owned or controlled by any person or entity. The terms "facility" and "facilities" include, but are not limited to, poles, anchors, pole hardware, wires, cables, strands, apparatus enclosures, or any other items attached to a pole or attached to hardware affixed to or associated with a pole; conduit and conduit systems and wires, cables, optical conductors, associated hardware, or other equipment located within a conduit systems. The terms "facility" and "facilities" may also include property, equipment, and items which do not occupy a conduit system or which are not attached to a pole or attached to hardware affixed to or associated with a pole.

- 3.1.5 An "inner duct" is one of the single enclosed pathways located within a duct, or buried separately without the benefit of conduit.
- 3.1.6 The term "make ready work" refers to all work performed or to be performed to prepare GTE's conduit systems, poles or anchors and related facilities for the requested occupancy or attachment of AT&T's facilities. "Make ready work" includes, but is not limited to, clearing obstructions, the rearrangement, transfer, replacement, and removal of existing facilities on a pole or in a conduit system where such work is required solely to accommodate AT&T's facilities and not to meet GTE's business needs or convenience. "Make ready work" may include the repair, enlargement, or modification of GTE's facilities (including, but limited to, conduits, ducts, or manholes) or the performance of other work required to make a pole, anchor, conduit or duct usable for the initial placement of AT&T's facilities.
- 3.1.7 A "manhole" is a subsurface enclosure that personnel may enter and use for the purpose of installing, operating, maintaining and repairing communications facilities.
- 3.1.8 A "pole attachment" is the connection of a facility to a utility pole. Some examples of such facilities are mechanical hardware, grounding and transmission cable, and equipment boxes.
- 3.1.9 A "Right of Way" ("ROW") is the right to use the land or other property of another party to place poles, conduits, cables, other structures and equipment, or to provide passage to access such structures and equipment. A ROW may run under, on, or above public or private property (including air space above public or private property) and may include the right to use discrete space in buildings, building complexes, or other locations.
- 3.2 **General Duties**
- 3.2.1 GTE shall make poles, ducts, conduits, and ROWs available to AT&T for Attachments under the terms and conditions set forth in this Section 3.
- 3.2.2 GTE shall provide AT&T equal and non-discriminatory access to pole space, ducts, conduit, and ROWs, on terms and conditions equal to that provided by GTE to itself or to any other party. Further, GTE shall not preclude or delay allocation of these facilities to AT&T because of the potential needs of itself or of other parties.

3.2.3 For those ancillary pathways to the customer, such as entrance facilities, cable vaults, telephone closets, equipment rooms, risers, and other similar passageways, that GTE controls access to and where spare capacity exists, GTE will provide access to those facilities to AT&T on a nondiscriminatory basis. GTE will exercise its rights as controller of those facilities on AT&T's behalf when negotiating with landowners. GTE will not enter into any agreements with owners that restrict the ability of the owner to reach similar agreements with AT&T.

3.2.4 GTE shall provide to AT&T a Regional Single Point of Contact to resolve issues that arise in the implementation of this Agreement.

### 3.3 Pre-Ordering Disclosure Requirements

3.3.1 AT&T may request information regarding the availability and conditions of poles, ducts, conduits, and ROWs prior to the submission of Attachment Requests. GTE shall provide information regarding the availability and condition of GTE's poles, ducts, conduits, or ROWs for Attachments within thirty (30) business days. If it is unable to inform AT&T about availability and conditions within the thirty-day interval, GTE shall advise AT&T within ten (10) days after receipt of AT&T's information request and will seek a mutually satisfactory time period for GTE's response. If GTE's response requires a field-based survey, AT&T shall have the option to be present at the field-based survey and GTE shall provide AT&T at least twenty-four (24) hours notice prior to the start of such field survey. During and after this period, GTE shall allow AT&T personnel to enter manholes and view pole structures to inspect such structures in order to confirm usability or assess the condition of the structure.

3.3.2 GTE shall make available to AT&T for inspection marked street maps or as-built drawings showing existing poles, conduit or other ROW at GTE's area engineering offices, upon reasonable advance notification. If the parties can ascertain the availability of a specific point-to-point route at the time of viewing, GTE will make the maps and pole prints available for copying. In making these maps and prints available, GTE makes no express or implied warranty as to the accuracy of these maps and prints, other than to represent that they are the maps and prints GTE uses in its day-to-day operations. GTE reserves the right to deny subsequent requests to see previously viewed maps and prints if AT&T does not have a good faith intention to submit an Attachment Request relating to the areas described.

- 3.3.3 AT&T shall pay GTE a reasonable administrative fee to cover the direct cost of providing conduit maps and prints.

**3.4 Attachment Requests**

- 3.4.1 GTE agrees to permit AT&T to place AT&T's facilities on or in GTE's poles, ducts, conduits, and ROWs pursuant to Attachment Requests from AT&T approved in accordance with Section 3.3 of this Attachment 3 of the Agreement, on the terms and conditions set forth herein.
- 3.4.2 At any time after execution of this Agreement, AT&T may submit a written Attachment Request to GTE [as set forth in Appendix --, attached to this Agreement]. An Attachment Request shall be deemed properly submitted if it identifies with specificity the GTE poles, ducts, conduits, or ROWs for which AT&T seeks Attachments. GTE shall approve any properly submitted Attachment Request within thirty (30) business days, if the space has previously been determined to be available. No Attachments shall be placed on any GTE pole identified in a Attachment Request until that Attachment Request has been approved by GTE. AT&T may submit subsequent Attachment Requests as needed.
- 3.4.3 Together with GTE's notice of approval of an Attachment Request submitted by AT&T, GTE shall also provide an estimate of the make ready costs associated with making the space available for AT&T's Attachment. GTE shall complete any make ready work required on pole or conduit structures to enable AT&T to install its facilities on these structures at a reasonable cost and within a reasonable time, to be agreed upon by GTE and AT&T. If such agreement does not occur within five (5) days, AT&T may hire outside contractors to do the work at AT&T's expense. In addition, GTE shall relocate existing Attachments where necessary and feasible to provide space for AT&T's Attachment requirements. The parties shall endeavor to mutually agree upon a reasonable time frame for the completion of such work within five (5) days following AT&T's requests for this work. If such agreement does not occur within five (5) days, AT&T may hire outside contractors to do the work at AT&T's expense. Any contractors hired by AT&T pursuant to this section shall meet GTE's reasonable standards.
- 3.4.4 GTE shall make conduit and pole space available to AT&T as soon as any make ready work and any relocations of existing attachments, as described in Section 3.3.4, are completed. At that time, AT&T shall have the right, subject to the terms and conditions of this Agreement, to place and maintain the facilities described in the Attachment Request in the space designated on or in GTE's poles, ducts, conduits, and rights of way

identified therein. AT&T may, at its option, use AT&T or AT&T-designated personnel to attach its equipment to GTE structures.

- 3.4.5 If GTE performs the make ready work specified by Section 3.4.3, AT&T agrees to pay GTE the direct make ready work costs within fifteen (15) business days of receiving GTE's invoice.
- 3.4.6 GTE will provide AT&T with answers to an Environmental, Health & Safety Questionnaire for each GTE facility in or on which AT&T seeks an Attachment. AT&T may provide this questionnaire with its Attachment Request and GTE shall return it to AT&T with the approval of AT&T's Attachment Request.
- 3.5 Authority to Place Attachments**
- 3.5.1 Before AT&T places any Attachment pursuant to an approved Attachment Request, AT&T shall submit evidence of its authority to erect and maintain the facilities to be placed on GTE's facilities within the public streets, highways and other thoroughfares or on private property, where such authority is required by law. AT&T shall be solely responsible for obtaining all licenses, authorizations, permits, and consent from federal, state and municipal authorities that may be required to place Attachments on GTE's facilities.
- 3.5.2 GTE shall not unreasonably intervene against or attempt to delay the granting of any licenses, authorizations, permits or consents from federal, state and municipal authorities or private property owners that may be required for AT&T to place its Attachments on or in any poles, ducts, conduits, or rights of way, and including manholes, entrance facilities, telephone closets, equipment rooms, risers, and any other similar passageway, that GTE owns or controls.
- 3.5.3 If any license, authorization, permit or consent obtained by AT&T is subsequently revoked or denied for any reason, permission to attach to GTE's facilities shall terminate immediately and AT&T shall remove its Attachments within one hundred twenty (120) days.
- 3.6 Capacity**
- 3.6.1 When there is insufficient space on a GTE pole or in a GTE conduit to accommodate an AT&T-requested Attachment or occupancy, GTE shall, at AT&T's option: (1) replace the pole or conduit with one of greater height or capacity; (2) permit AT&T to replace the pole or conduit whereby AT&T will become the owner of the pole or conduit; or (3) permit AT&T to replace the

pole or conduit with a GTE-furnished pole or conduit of greater height or capacity. AT&T shall be obligated to reimburse GTE for its proportionate share of the actual costs incurred.

- 3.6.2 GTE shall permit AT&T to break out of GTE conduit and to maintain facilities within conduit space used by AT&T and, where required by GTE, shall provide AT&T designated personnel with an escort service. Such escort service shall be available twenty-four (24) hours per day each day of the week. AT&T must obtain certification of a professional structural engineer for pre-1960 conduit that the modification will not adversely affect the structural integrity of the conduit.
- 3.6.3 GTE shall permit manhole interconnections and breaking out of GTE manholes and shall provide AT&T with sufficient space in manholes for the racking and storage of cable and other materials as requested by AT&T. GTE reserves the right to deny nonstandard requests to break out of manholes where the location in which AT&T wants to break out is blocked by cable rack.
- 3.6.4 GTE shall take all reasonable measures to allow access and/or egress to all conduit systems. This shall include but not be limited to GTE's removal, upon AT&T's request, of any retired cable from conduit systems to allow for the efficient use of conduit space within a reasonable period of time. If the Parties are unable to agree on what is reasonable (in terms of measures or time intervals), the matter may be submitted according to the Alternate Dispute Resolution Process, described in Attachment 1, by either Party.
- 3.6.5 Where GTE has spare inner ducts which are not, at that time, being used for providing its services, GTE shall offer such ducts for AT&T's use. GTE shall not reserve more than one inner duct in any conduit cross section for emergency/maintenance purposes. Where only two inner ducts remain available (including an emergency spare), GTE shall offer AT&T the use of at least one inner duct.
- 3.6.6 Where a spare inner duct does not exist, GTE shall allow AT&T to install an inner duct in a spare GTE conduit.
- 3.6.7 GTE shall not attach, or permit other entities to attach facilities on existing AT&T facilities without AT&T's prior written consent.
- 3.7 **Sharing of Rights of Way**
- 3.7.1 GTE shall offer the use of such ROWs it has obtained from a third party to AT&T, to the extent that GTE's agreement with the third party does not

prohibit GTE from granting such rights to AT&T. AT&T shall have the right to review the agreement between GTE and the third party. In cases where GTE does not have the authority to grant access, GTE shall cooperate with AT&T in obtaining such permission and shall not prevent or delay any third party assignment of rights-of-way to AT&T. If GTE is unable to make such space available, either GTE or AT&T shall have the option to install and maintain additional space for AT&T's use consistent with the procedure established in Section 3.6.1.

3.7.2 Where GTE has any ownership or other rights to ROW to buildings or building complexes, or within buildings or building complexes, GTE shall offer to AT&T through a lease or purchase agreement:

3.7.2.1 The right to use any spare metallic and fiber optic cable ROW from the property boundary into the building or building complex;

3.7.2.2 The right to use any available space owned or controlled by GTE in the building or building complex to install AT&T equipment and facilities, including but not limited to entrance facilities, telephone closets, and risers;

3.7.2.3 Ingress and egress to such space; and

3.7.2.4 The right to use electrical power at parity with GTE's rights to such power.

### 3.8 **Emergency Situations**

3.8.1 Within fifteen (15) business days after the Effective Date, GTE shall establish a non-discriminatory priority method to access GTE manholes and conduits in emergency situations.

### 3.9 **Attachment Fees**

3.9.1 AT&T shall pay to GTE an Attachment Fee, consistent with 47 U.S.C. § 224 and the FCC's implementing regulations promulgated thereunder, for each GTE facility upon which AT&T obtains authorization to place an Attachment. The general methodology for determining the Attachment Fee is set forth in Appendix \_\_, which is attached hereto. The Attachment Fee for each particular Attachment will be determined according to that methodology and made a part of this Agreement as an appendix thereto. The methodology established by this Agreement for use in deriving the Attachment Fee is subject to change, by mutual agreement, in the event the FCC promulgates new rules setting forth a new methodology.

3.9.2 GTE shall maintain an inventory of the GTE facilities occupied by AT&T based upon the cumulative facilities specified in all Requests for Attachment approved in accordance with Section 3.3 of this Attachment 3. AT&T shall have the right to remove any Attachment at any time, and it shall be AT&T's sole responsibility to notify GTE of any and all removals by AT&T of its Attachments from GTE's facilities. Such notice shall be provided to GTE at least thirty (30) days prior to the removal of the Attachments and shall take the form of a Notice of Removal [attached to this Agreement and made a part hereof]. AT&T shall remain liable for an Attachment Fee for each GTE facility included in all approved Attachment Requests until a Notice of Removal has been received by GTE. GTE may, at its option, conduct a physical inventory of AT&T's Attachments for purposes of determining the Attachment Fees to be paid by AT&T under this section.

### 3.10 Additions and Modifications to Existing Attachments

3.10.1 AT&T shall not modify, add to or replace facilities on any pre-existing Attachment without first notifying GTE in writing of the intended modification, addition or replacement at least thirty (30) days prior to the date the activity is scheduled to begin. The required notification shall include: (1) the date the activity is scheduled to begin, (2) a description of the planned modification, addition or replacement, (3) a representation that the modification, addition or replacement will not require any space other than the space previously designated for AT&T's Attachments, and (4) a representation that the modification, addition or replacement will not impair the structural integrity of the facilities involved.

3.10.2 If the modification, addition or replacement specified by AT&T in its notice will require more space than that allocated to AT&T or will require the reinforcement of replacement of or an addition of support equipment to the facilities involved in order to accommodate AT&T's modification, addition or replacement, AT&T will submit a Attachment Request in compliance with Section 3.3.1 of this Attachment 3 in order to obtain authorization for the modification, addition or replacement of its facilities.

### 3.11 Charges for Unauthorized Attachments

3.11.1 It is agreed that AT&T will dismantle, at its cost, any unauthorized Attachment.

3.11.2 For purposes of this section, an unauthorized Attachment shall include, but not be limited to: (a) a Attachment on or in any facility, which facility is not identified in any Attachment Request approved in accordance with this

Attachment 3; (b) a Attachment that occupies more space than that allocated to AT&T by GTE; (c) an addition or modification to a pre-existing Attachment that impairs the structural integrity of the involved GTE facilities.

**3.12 Surveys and Inspections of Attachments**

3.12.1 The exact location of AT&T's Attachments on or in GTE's facilities may be determined, at GTE's discretion, through a survey to be made not more than once per calendar year by GTE. If so requested, AT&T and/or any other entity owning or jointly owning the facilities with GTE may participate in the survey.

3.12.2 Apart from surveys conducted in accordance with Section 3.12.1 above, GTE shall have the right to inspect any Attachment of AT&T on or in GTE's facilities as conditions may warrant upon written notice to AT&T. No joint survey or inspection by GTE shall operate to relieve AT&T of any responsibility, obligation or liability assumed under this Agreement.

**3.13 Notice of Modification or Alteration of Poles by GTE**

3.13.1 If GTE plans to modify or alter any GTE facilities upon which AT&T has Attachments, GTE shall provide AT&T notice of the proposed modification or alteration at least sixty (60) days prior to the time the proposed modification or alteration is scheduled to take place. AT&T shall participate with GTE, at no cost to AT&T, in such modification and rearrangement. AT&T shall make all rearrangements of its facilities within such period of time as is jointly determined to be reasonable by the parties based on the amount of rearrangements necessary and a desire to minimize chances for service interruption or facility-based service denial to an AT&T customer.

**3.14 Default and Remedies**

3.14.1 The occurrence of any one of the following shall be deemed a Material Default by AT&T under this Agreement: (a) AT&T's voluntary or involuntary bankruptcy; (b) AT&T's knowing use or maintenance of its Attachments in violation of any law or regulation, or in aid of any unlawful act or undertaking; (c) If any authorization which may be required of AT&T by any governmental or private authority for the placement, operation or maintenance of AT&T's Attachments is denied or revoked, and any appeals or other actions for review of such denial or revocation have been completed.

3.14.2 In the event of a Material Default, without any further notice to AT&T (except where expressly provided for below or required by applicable law) may do any one or more of the following: (a) Perform, on behalf of and at the expense of AT&T, any obligation of AT&T under this Attachment that AT&T has failed to perform and of which GTE shall have given AT&T notice, the cost of which performance shall be paid by AT&T to GTE upon demand; (b) Terminate AT&T's authorization to place any facilities in or on GTE's facilities for any facilities affected by the Material Default by giving notice of such termination to AT&T and by removing the relevant Attachments of AT&T and storing them in a public warehouse or elsewhere at the expense of and for the account of AT&T without GTE being deemed guilty of trespass or conversion.

3.14.3 All rights and remedies of GTE set forth in this Agreement shall be cumulative and none shall exclude any other right or remedy, now or hereafter allowed by or available under any statute, ordinance, rule of court, or the common law, either at law or in equity, or both, except that GTE may not exercise any of the remedies set forth in § 3.14.2 if such Material Default is the subject of Alternate Dispute Resolution procedures as set forth in Attachment 1 to the Agreement.

**3.15 Termination of Section 3 by AT&T**

3.15.1 Section 3 of Attachment 3 of this Agreement may be terminated by AT&T any time prior to the expiration of its term by providing written notice to GTE of its intent to terminate not less than ninety (90) days prior to the date such termination is to become effective. Within one hundred twenty (120) days after the date this Section 3 is terminated, AT&T shall cause all of its Attachments to be removed from all of GTE's poles. In the event AT&T fails to remove its Attachments as required by this section, GTE shall

have the option to remove all such Attachments and store them in a public warehouse or elsewhere at the expense of and for the account of AT&T without GTE being deemed guilty of trespass or conversion, and without GTE becoming liable for any loss or damages to AT&T occasioned thereby.

**3.16 Indemnification**

AT&T shall indemnify GTE as set forth in Section 10 of the General Terms and Conditions of this Agreement.

**3.17 Abandonment**

- 3.17.1 Nothing in this Agreement shall prevent or be construed to prevent GTE from abandoning, selling, assigning or otherwise disposing of any poles, conduit systems, or other GTE property used for AT&T's Attachments, provided, however, that GTE shall condition any such sale, assignment or other disposition subject to the rights granted to AT&T pursuant to this Agreement. GTE shall promptly notify AT&T of any proposed sale, assignment or other disposition of any facilities or other GTE property used for AT&T's Attachments, and shall give AT&T the right of first refusal with respect to the sale, assignment, or disposition of such facilities or property.

**3.18 Alternate Dispute Resolution**

- 3.18.1 If GTE has declared AT&T in default of any provisions of this Section 3, or has otherwise notified AT&T that AT&T is not in compliance with the terms of this Section 3, GTE shall submit the matter to the Alternate Dispute Resolution Process described in Attachment 1, and will continue to process Attachment Requests pursuant to this Section 3.

4. GTE will not be relieved of its obligations to process Attachment Requests by AT&T if AT&T is alleged to be in default of this Section 3 for nonpayment of fees and charges due GTE under this Section 3, so long as such default is (1) the subject of good faith negotiations; (2) the subject of Alternate Dispute Resolution procedures as set forth in Attachment 1 to the Agreement; or (3) being adjudicated before the FCC or any other court, regulatory body, agency, or tribunal having jurisdiction over such dispute.

## **5. Unused Transmission Media**

### **5.1 Definitions:**

5.1.1 Unused Transmission Media is physical inter-office transmission media (e.g., optical fiber, copper twisted pairs, coaxial cable) which has no lightwave or electronic transmission equipment terminated to such media to operationalize its transmission capabilities. This media may exist in aerial or underground structure or within a building.

5.1.2 Dark Fiber, one type of unused transmission media, is unused strands of optical fiber. Dark Fiber also includes strands of optical fiber existing in aerial or underground structure which have lightwave repeater (regenerator or optical amplifier) equipment interspliced to it at appropriate distances, but which has no line terminating elements terminated to such strands to operationalize its transmission capabilities. Alternately, Dark Fiber means unused wavelengths within a fiber strand for purposes of coarse or dense wavelength division multiplexed (WDM) applications. Typical single wavelength transmission involves propagation of optical signals at single wavelengths (1.3 or 1.55 micron wavelengths). In WDM applications, a WDM device is used to combine optical signals at different wavelengths on to a single fiber strand. The combined signal is then transported over the fiber strand. For coarse WDM applications, one signal each at 1.3 micron and 1.55 micron wavelength are combined. For dense WDM applications, many signals in the vicinity of 1.3 micron wavelength or 1.55 micron wavelength are combined. Spare wavelengths on a fiber strand (for coarse or dense WDM) are considered Dark Fiber.

### **5.2 Requirements**

5.2.1 GTE shall offer all Unused Transmission Media to AT&T under a lease agreement.

5.2.2 GTE shall provide a Single Point of Contact (SPOC) for negotiating all Unused Transmission Media lease agreements.

5.2.3 AT&T may test the quality of the Unused Transmission Media to confirm its usability and performance specifications.

5.2.4 GTE shall provide to AT&T information regarding the location, availability and performance of Unused Transmission Media within five (5) business days for a records based answer and ten (10) business days for a field based answer, after receiving a request from AT&T.

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- 5.2.5 GTE shall make Unused Transmission Media available to AT&T within twenty (20) business days after it receives written confirmation from AT&T that the Unused Transmission Media previously deemed available by GTE is wanted for use by AT&T. This includes identification of appropriate connection points (e.g., Light Guide Interconnection (LGX) or splice points) to enable AT&T to connect or splice AT&T provided transmission media (e.g., optical fiber) or equipment to the Unused Transmission Media.

**5.3 Requirements Specific to Dark Fiber**

- 5.3.1 Dark Fiber shall meet the following requirements: single mode, with maximum loss of 0.40 dB/km at 1310 nm and 0.25 dB/km at 1550 nm.
- 5.3.2 AT&T may splice and test Dark Fiber leased from GTE using AT&T or AT&T designated personnel. GTE shall provide appropriate interfaces to allow splicing and testing of Dark Fiber. GTE shall provide an excess cable length of 25 feet minimum (for fiber in underground conduit) to allow the uncoiled fiber to reach from the manhole to a splicing van.
- 5.3.3 For WDM applications, GTE shall provide to AT&T an interface to an existing WDM device or allow AT&T to install its own WDM device (where sufficient system loss margins exist or where AT&T provides the necessary loss compensation) to multiplex the traffic at different wavelengths. This applies to both the transmit and receive ends of the Dark Fiber.

**ATTACHMENT 4****PROVISIONING AND ORDERING  
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**Provisioning and Ordering****1. Network Deployment**

- 1.1 GTE shall deploy and keep deployed network facilities in all its serving areas in every LATA from and after the Effective Date of this Agreement as necessary to provide on a timely basis each of the Elements or Combinations thereof, as defined below, that GTE is required to offer to AT&T pursuant to this Agreement.
- 1.2 Throughout the term of this Agreement, the quality of the technology, equipment, facilities, processes, and techniques (including, without limitation, such new architecture, equipment, facilities, and interfaces as GTE may deploy) that GTE provides to AT&T under this Agreement must be at least equal in quality to that provided by GTE to itself.

**2. General Provisioning Requirements**

- 2.1 AT&T may order Elements either individually or in any combination. Combinations ("Combinations") consist of multiple Elements that are logically related to enable AT&T to provide service in a geographic area or to a specific customer and that are placed on the same order by AT&T.
- 2.2 Combinations shall be identified and described by AT&T so that they can be ordered and provisioned together and shall not require the enumeration of each Element within that Combination on each provisioning order.
- 2.3 Multiple individual Elements may be ordered by AT&T from GTE on a single order without the need to have AT&T send an order for each Element.
- 2.4 GTE shall provide provisioning services to AT&T Monday through Saturday from 8:00 a.m. to 8:00 p.m., within each respective continental U.S. time zone. AT&T may request GTE to provide Sunday, holiday, and/or off-hour provisioning services. If AT&T requests that GTE perform provisioning services at times or on days other than as required in the preceding sentence, GTE shall quote, within one (1) day of the request, a cost-based rate for such services. If AT&T accepts GTE's quote, GTE shall perform such provisioning services.

GTE shall provide a Single Point of Contact (SPOC) for all ordering and provisioning contacts and order flow involved in the purchase and provisioning of GTE's unbundled Elements or Combinations. The SPOC shall provide an electronic

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interface twenty-four (24) hours a day, seven (7) days a week for all ordering and provisioning order flows. The SPOC shall also provide to AT&T a toll-free nationwide telephone number (operational from 8:00 a.m. to 8 p.m., Monday through Saturday, within each respective continental U.S. time zone) which will be answered by capable staff trained to answer questions and resolve problems in connection with the provisioning of Elements or Combinations.

- 2.5 GTE and AT&T shall jointly establish interface contingency and disaster recovery plans for the ordering and provisioning of GTE's unbundled Elements or Combinations.
- 2.6 GTE will recognize AT&T as the customer of record of all Elements or Combinations ordered by AT&T and will send all notices, invoices and pertinent information directly to AT&T.

### 3. Specific Provisioning Process Requirements

- 3.1 When AT&T orders the Local Switching Elements (either individually or as part of a Combination), AT&T may also obtain all technically available features and functions from the specified GTE switch (e.g., BRCS, CLASS, and LASS features).
- 3.2 When requested by AT&T, GTE will schedule installation appointments (GTE employee dispatch) with GTE's representative on the line with AT&T's representative or provide AT&T access to GTE's scheduling system. GTE will provide appropriate training for all its employees who may interface with AT&T's Customers based on AT&T's instructions and materials.
- 3.3 Upon request from AT&T, GTE will provide an intercept referral message in Tandem Switching Element that includes any new AT&T telephone number, for six (6) months, or until the next publication of GTE's directory. This message shall be approved by AT&T and shall be similar in format to the intercept referral messages currently provided by GTE for its own end-users.
- 3.4 GTE will provide AT&T with a Firm Order Confirmation (FOC) for each order, within twenty-four (24) hours of GTE's receipt of that order, or within a different time interval as specified by AT&T. The FOC must contain an enumeration of AT&T's ordered Elements or Combinations (and the specific GTE naming convention applied to that Element or Combination), features, options, physical interconnection, quantity, and GTE's commitment date for order completion (Committed Due Date).

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- 3.5 Upon work completion, GTE will provide AT&T electronically (unless otherwise notified by AT&T) with an Order Completion per order that states when that order was completed. GTE shall respond with specific order detail as enumerated on the FOC and shall state any additional charges (e.g., Time and Cost charges) up to a previously agreed upon limit associated with that order.
- 3.6 GTE will perform pre-testing as per industry standards and will provide in writing, or electronically as directed by AT&T, all test and turn-up results in support of the Elements or Combinations ordered by AT&T. GTE shall provide these test results to AT&T at the same time GTE provides its order-specific Order Completion.
- 3.7 As soon as identified, GTE shall provide notification electronically (unless otherwise notified by AT&T) of Rejections/Errors contained in any of the data element(s) fields contained on any AT&T order.
- 3.8 As soon as identified, GTE shall provide notification electronically (unless otherwise notified by AT&T) of any instances when GTE's Committed Due Dates are in jeopardy of not being met by GTE on any element or feature contained in any order for Network Elements or Combinations. GTE shall concurrently indicate its new committed due date.
- 3.9 Within twenty-four (24) hours of AT&T's request, GTE will perform cooperative testing with AT&T (including trouble shooting to isolate any problems) to test Elements or Combinations purchased by AT&T in order to identify any performance problems.
- 3.10 GTE will provide AT&T and its customers with Directory Listings as specified in the General Terms and Conditions of this Agreement.
- 3.11 GTE will provide a disaster recovery plan associated with the recovery of any systems and or functions connected with the ordering and provisioning processes acceptable to AT&T.
- 3.12 AT&T may choose between SCE/SMS AIN Access and SS7 AIN Access as designated on AT&T's provisioning order.
- 3.13 GTE shall inform AT&T if a customer action results in reassignment of an AIN trigger from an AT&T AIN application to some other service provider's application. Such notification shall be completed within twenty-four (24) hours of the action via electronic interface as described in the Account Maintenance requirements specified in the Customer Billing section of this Agreement.

- 3.14 GTE shall maintain a database containing AIN trigger configuration and other data necessary to allow AIN service and feature interactions to be determined by AT&T. GTE shall provide AT&T the capability to make queries on a demand basis to such database.
- 3.15 GTE shall provision AIN triggers as requested by AT&T on its provisioning order.

#### **4. General Ordering Requirements**

- 4.1 Upon AT&T's request through a Suspend/Restore Order, GTE shall suspend or restore the functionality of any Network Element or Combination. GTE shall implement any restoration priority on a per Network Element or Combination basis in a manner that conforms with AT&T requested priorities and any applicable regulatory policy or procedures.
- 4.2 GTE shall provide to AT&T the functionality of blocking calls (e.g., 800, 900, 976 international calls) by line or trunk on an individual switching element basis.
- 4.3 When ordering a Local Switching Element, AT&T may order from GTE separate interLATA and intraLATA capabilities (i.e., 2 PICs where available) on a line or trunk basis.
- 4.4 Unless otherwise directed by AT&T, when AT&T orders an Element or Combination, all pre-assigned trunk or telephone numbers currently associated with that Network Element or Combination shall be retained without loss of feature capability and without loss of associated Ancillary Functions including, but not limited to, Directory Assistance and 911/E911 capability.
- 4.5 When AT&T orders Elements or Combinations that are currently interconnected and functional, such Elements and Combinations will remain interconnected and functional without any disconnection or disruption of functionality. This shall be known as Contiguous Network Interconnection of network elements. There shall be no charge for such interconnection.

#### **5. Ordering Interfaces**

- 5.1 GTE shall provide to AT&T an Electronic Interface (EI) for transferring and receiving orders, FOCs, Service Completions, and other provisioning data and materials (e.g., access to Street Address Guide (SAG) and Telephone Number Assignment Data Base). This EI shall be administered through a

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gateway that will serve as a single point of contact for the transmission of such data from AT&T to GTE, and from GTE to AT&T. The requirements and implementation of such a data transfer system are subject to future agreement by AT&T and GTE. Until such time as a gateway is established, the EI to be used shall be the same EI as is currently utilized by GTE, as may be modified during the interim period.

- 5.2 When ordering a Local Switching Element, AT&T's representatives will have real-time access to GTE customer information systems which will allow the AT&T representatives to perform the following tasks:
  - 5.2.1 Obtain customer profile, including customer name, billing and residence address, billed telephone numbers, and identification of features and services subscribed to by customer;
  - 5.2.2 Obtain information on all features and services available, in end-office where customer is provisioned;
  - 5.2.3 Enter the order for the desired features and services;
  - 5.2.4 Provide an assigned telephone number (if the customer does not have one assigned). Reservation and aging of these numbers remain GTE's responsibility;
  - 5.2.5 Establish the appropriate directory listing;
  - 5.2.6 Determine if a service call is needed to install the line or service;
  - 5.2.7 Provide service availability dates to the customer;
  - 5.2.8 Provide information regarding dispatch/installation schedule, if applicable;
  - 5.2.9 Order intraLATA toll and access to long distance service in a single, unified order;
  - 5.2.10 Suspension, termination, or restoral of service.

6. **GTE Provision of Information**

- 6.1 GTE shall provide to AT&T upon request:
  - 6.1.1 a list of all services and features technically available from each switch that GTE may use to provide a Local Switching Element, by switch CLLI;

- 6.1.2 a listing by street address detail, of the service coverage area of each switch CLI;
- 6.1.3 all engineering design and layout information for each network Element and Combination;
- 6.1.4 a listing of all technically available functionalities for each Element or Combination; and
- 6.1.5 advanced information on the details and requirement for planning and implementation of NPA splits.
- 6.2 Promptly after the Effective Date of this Agreement, GTE shall provide AT&T an initial electronic copy and a hard copy of the SAG or its equivalent. Updates shall be provided to AT&T electronically as changes are made to the SAG.

**7. Order Format and Data Elements for Individual Network Elements**

- 7.1 In ordering Elements or Combinations, AT&T will utilize standard industry order formats and data elements developed by the Order and Billing Forum (OBF). Industry standards do not currently exist for the ordering of Elements or Combinations. Therefore, until such standards industry order formats and data elements are developed by the OBF, AT&T will utilize the format described in this Section to address the specific data requirements necessary for the ordering of Network Elements or Combinations.
- 7.2 AT&T and GTE shall agree upon the appropriate ordering and provisioning codes to be used for each Element or Combination. These codes shall be known as data elements.
- 7.3 Each order for an Element or a Combination will contain the following order-level sections, as currently defined by the OBF: Administration, Bill, Contact, and End User Information.
- 7.4 In addition to the above OBF sections, AT&T will provide provisioning data in the format defined below when ordering Elements or Combinations. First, AT&T will state whether it is ordering an Element (one or more of the Elements described in this Agreement) or a Combination (multiple Elements on the same order). AT&T will then provide data in the following provisioning categories, such data to be provided on the OBF ordering form as completed data fields:

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7.4.1 Activity. The activity field will include *one* of the following entries:

(A) - Add. This will apply when a new Element or Combination is being ordered.

(C) - Change. This will apply when an existing Element or Combination is being altered in some way.

(D) - Disconnect. This will apply when an existing Element or Combination is being completely disconnected.

(R) - Record Only. This will apply when there is no physical or logical work required and all that is necessary is the update of GTE's internal records. This does not apply to the functional databases listed under the SCPs/Databases Element. Any functional change to these databases will be handled under an Add, Change, or Disconnect order.

7.4.2 Order Activity Description. For each activity, a further description of the Order Activity may be required. The following Order Activity Descriptions may be applied to any Add, Change, Disconnect or Record Only order. In some cases, more than one of these may apply to a particular order.

Modify: This will apply when the order has been modified in some way.

Cancel: This will apply when the order has been canceled, and no provisioning activity related to that order is to be completed.

Expedite: This will apply when the provisioning activity is required to be completed in less time than stipulated by the minimum element intervals as defined in Section 9.1. The Desired Due Date category will reflect the date the activity needs to be completed.

Sequence: This will apply when components of the order must be worked in the proper sequence, or when components of the order are sequentially related to components of another order.

Coordinated: This will apply when components of the order must be worked simultaneously, or when components of this order must be coordinated with components of another order.

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**Suspend:** This will apply when the function of the Network Element or Combination is to be suspended until further notice. The exact nature of the suspension will be reflected within the body of the order. This field will be used with a C (Change) Order Activity.

**Restore:** This will apply when previously suspended functionality is to be restored. This field will be used with a C (Change) Order Activity.

**7.4.3 Purpose of Order.** The Purpose of Order will contain a brief statement describing the overall purpose of the order (e.g., Add new ISDN loop or build dedicated trunking/transport from local end office to AT&T OSPS 5E).

**7.4.4 Type of Element or Combination.** The Type of Element or Combination category consists of two parts. First, an E (Element) or C (Combination) followed by a dash and then the two-character code for the Element(s) (e.g., E-LS (Local Switching) and C-DT/LS (Combination of Dedicated Transport and Local Switching)). Below are the Elements and their two-character codes:

|           |  |
|-----------|--|
| <b>LD</b> | Loop Distribution                              |
| <b>LC</b> | Loop Concentrator/Multiplexer                  |
| <b>LF</b> | Loop Feeder                                    |
| <b>LS</b> | Local Switching                                |
| <b>OS</b> | Operator Systems                               |
| <b>CT</b> | Common Transport                               |
| <b>DT</b> | Dedicated Transport                            |
| <b>SS</b> | Signal Transfer Points                         |
| <b>SL</b> | Signaling Link Transport                       |
| <b>DB</b> | SCPs/Databases (LNP, LIDB, Toll Free, ALI/DMS) |
| <b>TS</b> | Tandem Switching                               |

**7.4.5 Interconnection Locations.** This category describes the beginning and end-point of the Element or Combination. For example, the point of termination (POT) may be listed as a switch CLLI, a frame tie down location, a channel on a T3, or a customer address. Various types of POT are described in the tables shown in Appendix A.

**7.4.6 Interconnection Specific.** The Interconnection Specific category describes the nature of the interconnection and the appropriate relationships within the Network Element/Combination. The appropriate type of Interconnection

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Specifics is described for each Network Element/Combination in the tables shown in Appendix A. The following definitions apply:

Contiguous: All cross-connects, muxing, cross-office ties, etc. will be included between the two Interconnection points listed under Interconnection Locations so that the Element or Combination is delivered fully functional.

Routing: Indicates that routing is part of the necessary interconnection.

Functionally Inclusive: All functionality as it is defined within the Unbundled Network Element Attachment of this Agreement as it relates to interconnection when the Element or Combination is provisioned by GTE.

- 7.4.7 Element Identification. This field includes the precise identifier of the Network Element. For example, the identifier can be a circuit ID, facility name, switch CLLI, or Working Telephone Number. The appropriate type of Element ID is described for each Network Element/Combination within the tables shown in Appendix A.
- 7.4.8 Object. The Object identifies the basic unit of the Network Element or Combination. Examples include Network Trunk (for the Element LS) and DS1 (for the Element DT). The Objects related specifically to each Element or Combination are provided in the tables shown in Appendix A.
- 7.4.9 Quantity/Capacity. This field lists the Quantity/Capacity of Objects. For example, for the Loop Combination (see description in Section 8.3 below), the number "1" in this field would indicate that one loop combination was being ordered. On the other hand, for the Object "DT" the number "4" would indicate that a capacity of 4 DS1 are being ordered.
- 7.4.10 Options. For each Object, there may be numerous Options. This category identifies the specific Option of the selected Object. In most cases, only *one* Option applies for each Object. One example is LC (Loop Concentrator/Multiplexer). This exception is noted within the tables shown in Appendix A. The specific Options for each Object are contained within the Provisioning Network Element/Combination tables. Examples include 2-wire (for the Object Analog Loop), DID (for the Object Customer Trunk), and ESF (for the Object DS1).
- 7.4.11 Characteristics. For each Option, there may be multiple Characteristics that require additional details. This category identifies those Characteristics,

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along with the necessary details. The appropriate type of Characteristics are described for each Element or Combination within the tables shown in Appendix A. Examples include ISDN conditioned (for the Option 2-wire) and TSG (for the option DID).

- 7.4.12 **Features.** This field identifies the Features specific to the Network Element/Combination. For example, when the Network Element is Local Switching, the CLASS/LASS features would be included in this category. AT&T will direct GTE as to which of these features to activate for a specific customer.
- 7.4.13 **Desired Due Date.** This field identifies the date the entire order is expected to be completed.
- 7.4.14 **Due Date Detail.** This field identifies interim dates (for Combinations where the Element Due Dates differ), and the relationship between the provisioning activities internal to the order, and those provisioning activities outside the order that may be related. Coordination and sequencing requirements will be reflected in this field.
- 7.4.15 **Remarks.** This field will include any remarks that are related to the provisioning order that are not reflected elsewhere.
- 7.5 When ordering an Element (individually or as part of a Combination), the interconnection and functionality internal to that Element will not be specifically ordered by AT&T and will automatically be provided by GTE. For example, when ordering the element DT (Dedicated Transport), the use of Digital Cross Connects that might be necessary to provide the connectivity between two interconnection locations will not be described on AT&T's order.
- 7.6 Examples of the provisioning format to be used by AT&T when ordering certain provisioning activities for individual Network Elements are shown in Appendix B.
8. **Order Format and Data Elements for Combinations**
- 8.1 AT&T may purchase Network Elements either individually or in combinations. Combinations of Contiguous Network Elements can be ordered (i) on a case-by-case basis for those elements that are customer-specific; or (ii) on a common-use basis for those elements that are shared by multiple customers.
- 8.2 When ordering a Combination, AT&T will have the option of ordering all capabilities and functionalities of each of the underlying individual Elements.

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- 8.3 When ordering either customer-specific or common-usage Combinations, AT&T may specify the functionality of that Combination without the need to specify the configuration of the individual Elements needed to perform that functionality. For example, AT&T has identified a Combination, designated as the *Loop Combination*, with the functionality described in Appendix A. This Combination shall be identified as C-LOOP, with its functionality as described in Appendix C, LOOP Combination. This Combination can be comprised of all or some of the following Elements, depending on the individual customer: LD (Loop Distribution), LC (Loop Concentrator/Multiplexer) and LF (Loop Feeder). When ordering this Combination, AT&T will order the C-Loop functionality and GTE will provision those Elements needed, as appropriate, on a case-by-case basis. AT&T will order the *Loop Combination* as illustrated in Appendix C, example 1.
- 8.4 AT&T may also choose to purchase from GTE a *LOOP and Switching Combination* which would be comprised of the LOOP Combination described above and Network Element LS (Local Switching). This Combination would allow AT&T to purchase switching features (such as Class features) and functionalities on a per-customer basis. AT&T will order the *LOOP and Switching Combination* as illustrated in Appendix C, example 2.
- 8.5 Prior to providing Local Service in a specific geographic area or when AT&T requires a change of network configuration, AT&T may place an order with GTE requiring GTE to prepare certain common-usage elements and functionalities for AT&T. AT&T has identified one possible set of these elements and functionalities as the *Local Switching Conditioning Combination*. This Combination may be comprised of all or some of the following individual Network Elements: LS (Local Switching), CT (Common Transport), SS (Signal Transfer Points), DB (SCPs/Databases) and TS (Tandem Switching). In order to provide these elements and their respective functionalities to AT&T, GTE shall prepare its network for AT&T's use of these common elements by readying each necessary switch with an AT&T Line Class Code. AT&T will order the *Local Switching Conditioning Combination* as illustrated in Appendix C, example 3.
- 8.6 AT&T may also use unbundled network elements to originate and terminate toll traffic. AT&T has identified the following two Combinations which will allow such functionality: *Toll Traffic Combination 1* which is comprised of the Network Elements DT (Dedicated Transport) and LS (Local Switching); and *Toll Traffic Combination 2* which is comprised of DT (Dedicated Transport), TS (Tandem Switching), CT (Common Transport), and LS (Local Switching). AT&T will order the *Toll Traffic Combination 1*, as illustrated in Appendix C, example 4.

- 8.7 There are many additional Combinations which AT&T may choose to order from GTE. AT&T includes examples of some such additional Combinations and their ordering formats in Appendix C, examples 5 and 6.

9. **Performance Requirements**

- 9.1 AT&T will specify on each order its Desired Due Date (DDD) for completion of that particular order. Standard intervals do not apply to orders under this Agreement. GTE will not complete the order prior to DDD or later than DDD unless authorized by AT&T. If the DDD is less than the following element intervals, the order will be considered an expedited order.

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| INTERVALS FOR ORDER COMPLETION             |                |
|--|----------------|
| Network Element                            | Number of Days |
| LD   | 2              |
| LC   | 2              |
| LF   | 2              |
| LS   | 2              |
| OS   | 2              |
| DT   |                |
| DS0, DS-1, T 1.5                           | 3              |
| STS-1, DS3/T3                              | 5              |
| OC-3, +                                    | 15             |
| SS   | 3              |
| SL   | 2              |
| DB   | 2              |
| TS   | 2              |
| C-Loop                                     | 2              |
| C-Local Switch Conditioning<br>Combination | 20             |

- 9.2 Within two (2) business hours after a request from AT&T for an expedited order, GTE shall notify AT&T of GTE's confirmation to complete, or not complete, the order within the expedited interval. A Business Hour is any hour occurring on a business day between 8 a.m. and 8 p.m. within each respective continental U.S. time zone.
- 9.3 Once an order has been issued by AT&T and AT&T subsequently requires a new DDD that is less than the minimum interval defined, AT&T will issue an expedited modify order. GTE will notify AT&T within two (2) Business Hours of its confirmation to complete, or not complete, the order requesting the new DDD.
- 9.4 AT&T and GTE will agree to escalation procedures and contacts. GTE shall notify AT&T of any modifications to these contacts within one (1) week of such modifications.
- 9.5 GTE shall satisfy the following Direct Measures of Quality: (i) at least 90% of all orders must be completed by DDD; (ii) at least 98% of all orders must be completed by Committed Due Date; and (iii) at least 99% of all orders will be completed without error.

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# Unbundled Network Element Provisioning Categories

## 1) Loop Distribution

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i> | <i>Interconnection<br/>Specific</i> | <i>Element ID</i> | <i>Object (one of)</i> | <i>Option (one of)</i>                | <i>Characteristics</i>  |
|------------------------------|-------------|-------------------------------------|-------------------------------------|-------------------|------------------------|---------------------------------------|-------------------------|
| A,C,D,R                      | LD          | Cust. address<br><br>CLLI/POT       | CONTIGUOUS                          | Loop/circuit ID   | Copper                 | 2-wire<br>4-wire                      | Special<br>Conditioning |
|                              |             |                                     |                                     |                   | Fiber                  | Single mode<br>Multi mode             | Connector type          |
|                              |             |                                     |                                     |                   | Coax                   |                                       |                         |
|                              |             |                                     |                                     |                   | Stand Alone NI         | 2-wire<br>4-wire<br>4-wire/smart jack |                         |

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### Unbundled Network Element Provisioning Categories

#### 2) Loop Concentrator/Multiplexer

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i> | <i>Interconnection<br/>Specific</i> | <i>Element ID</i> | <i>Object (one of)</i> | <i>Options<br/>(combination<br/>of)</i>         | <i>Characteristics</i>   |
|------------------------------|-------------|-------------------------------------|-------------------------------------|-------------------|------------------------|---|--|
| A,C,D,R                      | LC          | Location CLLI                       | FUNCTIONALLY<br>INCLUSIVE           | Equip. CLLI       | Integrated DLC         | A/D conversion<br>Multiplexing<br>Concentration | Interface rate<br>Multiplex from-to<br>interface protocol<br>(TR08, TR303)<br>Framing format<br>Concentration ratio<br>Circuit pack (card)<br>type |
|                              |             |                                     |                                     |                   | Universal DLC          | A/D conversion<br>Multiplexing<br>Concentration | Interface rate<br>Multiplex from-to<br>interface protocol<br>(TR08, TR303)<br>Framing format<br>Concentration ratio<br>Circuit pack (card)<br>type |
|                              |             |                                     |                                     |                   | Channel Bank           | A/D conversion<br>Multiplexing                  | Multiplex from-to<br>Framing format  |
|                              |             |                                     |                                     |                   | Multiplexer            | Multiplexing                                    | Multiplex from-to<br>Framing format  |

#### 3) Loop Feeder

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i> | <i>Interconnection<br/>Specific</i> | <i>Element ID</i>           | <i>Object (one of)</i> | <i>Option (one<br/>of)</i> | <i>Characteristics</i>              |
|------------------------------|-------------|-------------------------------------|-------------------------------------|-----------------------------|------------------------|----------------------------|-------------------------------------|
| A,C,D,R                      | LF          | Location CLLI<br><br>CLLI/POT       | CONTIGUOUS                          | Facility name<br>Circuit ID | Copper                 | DS0<br>DS1                 | ISDN Conditioned<br>DS1 Conditioned |

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### Unbundled Network Element Provisioning Categories

|  |  |  |  |  |       |                           |                |
|--|--|--|--|--|-------|---------------------------|----------------|
|  |  |  |  |  | Fiber | Single mode<br>Multi mode | Connector type |
|--|--|--|--|--|-------|---------------------------|----------------|

#### 4) Local Switching

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i> | <i>Interconnection<br/>Specific</i>      | <i>Element ID</i>                        | <i>Object (one of)</i>                            | <i>Option (one<br/>of)</i> | <i>Characteristics</i>  |
|------------------------------|-------------|-------------------------------------|--|--|---|----------------------------|---|
| A,C,D,R                      | LS          | WTN<br>Location CLLI<br>Switch CLLI | FUNCTIONALLY<br>INCLUSIVE<br><br>ROUTING | WTN<br>TSG<br>Designation<br>Switch CLLI | Line (may be<br>Concentrated if<br>so designated) | POTS<br>ISDN<br>Centrex    | Signaling<br>Line Class Code<br>WTN<br>E911<br>Concentration Ratio<br>Interface rate<br>(DS1, DS3)<br>Interface protocol<br>(TR08, TR303) |
|                              |             |                                     |  |  | Non-concentrated<br>Line                          | POTS<br>ISDN<br>Centrex    | Signaling<br>Line Class Code<br>WTN<br>E911<br>Interface rate (DS0,<br>DS1, DS3)  |
|                              |             |                                     |  |  | Network Trunk                                     | SS7<br>MF                  | One-way<br>Two-way<br>Routing<br>Screening<br>TSG   |
|                              |             |                                     |  |  | Customer Trunk                                    | DID<br>DOD<br>Two-way      | Signaling<br>Routing<br>Screening<br>TSG  |
|                              |             |                                     |  |  | Routing   | Operator<br>Services       |   |

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### Unbundled Network Element Provisioning Categories

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i> | <i>Interconnection<br/>Specific</i> | <i>Element ID</i> | <i>Object (one of)</i>  | <i>Option (one<br/>of)</i>                                     | <i>Characteristics</i>   |
|------------------------------|-------------|-------------------------------------|-------------------------------------|-------------------|-------------------------|--|--|
|                              |             |                                     |                                     |                   |                         | Directory<br>Assistance<br>Messaging                           |  |
|                              |             |                                     |                                     |                   | LNP                     | RCF<br>DNRI<br>RIPH<br>LERG                                    | Ported number(s)<br>Shadow number(s)<br>Number of call paths                     |
|                              |             |                                     |                                     |                   | AIN trigger             | Triggers (e.g.<br>Off-hook<br>immediate,<br>off-hook<br>delay) | Subscribed<br>Office-based<br>Dialing plan<br>Translation type<br>Digit sequence |
|                              |             |                                     |                                     |                   | Data Switch<br>UNI Port | Switch type<br>(e.g. ATM,<br>Frame Relay)                      | Policing<br>Congestion control   |
|                              |             |                                     |                                     |                   | Data Switch<br>NNI Port | Switch type<br>(e.g. ATM,<br>Frame Relay)                      | Policing<br>Congestion control   |
|                              |             |                                     |                                     |                   |                         |  |  |

### 5) Operator Systems

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i>                       | <i>Interconnection<br/>Specific</i> | <i>Element ID</i> | <i>Object (one of)</i> | <i>Option (one<br/>of)</i> | <i>Characteristics</i>                      |
|------------------------------|-------------|---|-------------------------------------|-------------------|------------------------|----------------------------|---|
| A,C,D,R                      | OS          | Serving area<br>(NPA-XXX,<br>LATA, State,<br>Rate center) | FUNCTIONALLY<br>INCLUSIVE           |                   | Operator Services      |                            | O+<br>O-<br>Busy Line Verification<br>(BLV) |

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### Unbundled Network Element Provisioning Categories

|  |  |  |  |  |                      |                       |  |
|--|--|--|--|--|----------------------|-----------------------|--|
|  |  |  |  |  |                      |                       | Emergency Line Interrupt (ELI)<br>911 overflow |
|  |  |  |  |  | Directory Assistance | Service Area Customer | 411<br>555-1212                                |

### 6) Common Transport

| Activity (one of) | Type | Interconnection Location                         | Interconnection Specific             | Element ID | Object (one of) | Option (one of) | Characteristics |
|-------------------|------|--|--------------------------------------|------------|-----------------|-----------------|-----------------|
| A,C,D,R           | CT   | Serving area (NPA-NXX, LATA, State, Rate center) | CONTIGUOUS<br>FUNCTIONALLY INCLUSIVE |            |                 |                 |                 |

### 7) Dedicated Transport

| Activity (one of) | Type | Interconnection Location  | Interconnection Specific | Element ID            | Object (one of) | Option (one of)                          | Characteristics   |
|-------------------|------|---------------------------|--------------------------|-----------------------|-----------------|--|---|
| A,C,D,R           | DT   | Location CLLI<br>CLLI/POT | CONTIGUOUS               | Facility name<br>CLFI | DS0             | No DCS<br><br>D4 Channel Bank<br>DCS 1/0 | Routing Avoidance<br><br>A/D Conversion<br>Multiplexing/<br>De-multiplexing<br>Format conversion<br>Signal conversion<br>Performance monitoring<br>SONET to Asynch.<br>gateway<br>Broadcasting<br>Mapping |

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### Unbundled Network Element Provisioning Categories

| Activity<br>(one of) | Type | Interconnection<br>Location | Interconnection<br>Specific | Element ID | Object (one<br>of) | Option (one of)                         | Characteristics  |
|----------------------|------|-----------------------------|-----------------------------|------------|--------------------|---|--|
|                      |      |                             |                             |            | DS1                | No DCS<br><br>DSX<br>DCS 1/0<br>DCS 3/1 | Signal format<br>(e.g. B8ZS,<br>AMI)<br>Framing format<br>(e.g. ESF, D4,<br>unframed)<br><br>Multiplexing/<br>Demultiplexing<br>Format<br>conversion<br>Signal<br>conversion<br>Performance<br>monitoring<br>SONET to<br>Asynch.<br>gateway<br>Broadcasting<br>Mapping |
|                      |      |                             |                             |            | DS3                | No DCS<br><br>DSX<br>DCS 3/1<br>DCS 3/3 | Secure Interface<br>Framing format<br>(e.g. C-bit<br>parity,<br>M13, unframed)<br><br>Multiplexing/<br>Demultiplexing<br>Format<br>conversion<br>Signal<br>conversion<br>Performance   |

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### Unbundled Network Element Provisioning Categories

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i> | <i>Interconnection<br/>Specific</i> | <i>Element ID</i> | <i>Object (one<br/>of)</i> | <i>Option (one of)</i> | <i>Characteristics</i>  |
|------------------------------|-------------|-------------------------------------|-------------------------------------|-------------------|----------------------------|------------------------|---|
|                              |             |                                     |                                     |                   |                            |                        | monitoring<br>SONET to<br>Asynch.<br>gateway<br>Broadcasting<br>Mapping |
|                              |             |                                     |                                     |                   | VT1.5                      |                        |   |
|                              |             |                                     |                                     |                   | STS <sub>n</sub>           | LGX                    |   |

### 8) Signal Transfer Points

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i>                       | <i>Interconnection<br/>Specific</i>         | <i>Element ID</i> | <i>Object (one of)</i>     | <i>Option (one of)</i> | <i>Characteristics</i> |
|------------------------------|-------------|---|---|-------------------|----------------------------|------------------------|------------------------|
| A,C,D,R                      | SS          | Serving area<br>(NPA-NXX,<br>LATA, State,<br>Rate center) | CONTIGUOUS<br><br>FUNCTIONALLY<br>INCLUSIVE | STP CLLI (pair)   | A-link interface<br>(pair) | DS0<br>DS1             |                        |
|                              |             | CLLI/POT  | ROUTING                                     |                   |                            |                        |                        |
|                              |             |   |   |                   | D-link interface<br>(quad) | DS0<br>DS1             |                        |

### 9) Signaling Link Transport

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i> | <i>Interconnection<br/>Specific</i> | <i>Element ID</i>           | <i>Object (one of)</i> | <i>Option (one of)</i> | <i>Characteristics</i> |
|------------------------------|-------------|-------------------------------------|-------------------------------------|-----------------------------|------------------------|------------------------|------------------------|
| A,C,D,R                      | SL          | Location CLLI                       | CONTIGUOUS                          | Facility name<br>Circuit ID | Pair                   | DS0<br>DS1             |                        |

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**Unbundled Network Element Provisioning Categories**

|  |  |          |  |  |      |            |  |
|--|--|----------|--|--|------|------------|--|
|  |  | CLLI/POT |  |  |      |            |  |
|  |  |          |  |  | Quad | DS0<br>DS1 |  |

**Unbundled Network Element Provisioning Categories**

**10) SCPs/Databases**

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i>  | <i>Interconnection<br/>Specific</i> | <i>Element ID</i> | <i>Object (one of)</i> | <i>Option (one<br/>of)</i>          | <i>Characteristics</i>  |
|------------------------------|-------------|--|-------------------------------------|-------------------|------------------------|-------------------------------------|---|
| A,C,D,R                      | DB          | Serving area<br>(NPA-NXX,<br>LATA, State,<br>Rate center,<br>region)<br><br>Customer | FUNCTIONALLY<br>INCLUSIVE           |                   | LNP                    | Serving Area                        | NPA-NXX<br>LATA<br>Region                                     |
|                              |             |  |                                     | WTN               | LIDB                   | Serving Area<br>Customer            | NPA-NXX<br>VNS<br>Calling Card                                |
|                              |             |  |                                     |                   | Toll Free (800)        | Serving Area                        | NPA-NXX   |
|                              |             |  |                                     | WTN               | E911 (ALI/DMS)         | Serving Area<br>Customer            | NPA-NXX<br>Rate Center<br>Region<br>Customer<br>Address, etc. |
|                              |             |  |                                     | WTN               | AIN                    | Customer                            | WTN<br>Dialing sequence                                       |
|                              |             |  |                                     |                   | SCE/SMS/SCP<br>Access  | AIN Triggers<br>(e.g. Off-<br>hook) | Subscribed<br>Office-based                                    |

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**Unbundled Network Element Provisioning Categories**

**11) Tandem Switching**

| <i>Activity<br/>(one of)</i> | <i>Type</i> | <i>Interconnection<br/>Location</i>  | <i>Interconnection<br/>Specific</i>      | <i>Element ID</i> | <i>Object (one of)</i> | <i>Option (one<br/>of)</i>                                   | <i>Characteristics</i>                            |
|------------------------------|-------------|--|--|-------------------|------------------------|--|---|
| A,C,D,R                      | TS          | Serving area<br>(NPA-NXX,<br>LATA, State,<br>Rate center)<br><br>Location CLLI | FUNCTIONALLY<br>INCLUSIVE<br><br>ROUTING | Switch CLLI       | Network Trunk          | SS7<br>MF  | One-way<br>Two-way<br>Routing<br>Screening<br>TSG |
|                              |             |  |  |                   | Routing                | Operator<br>Services<br>Directory<br>Assistance<br>Messaging |   |
|                              |             |  |  |                   | LNP                    | RIPH   | Overflow<br>Primary                               |

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# Unbundled Network Element Provisioning Format

## Example 1

**Purpose of Order:** Modify Dedicated transport order, Customer PBX to AT&T 4ESS

|                          |          |                                    |   |
|--------------------------|----------|------------------------------------|---|
| <b>Order Activity:</b>   | A        | <b>Order Activity Description:</b> | Modify <input checked="" type="checkbox"/> Cancel <input type="checkbox"/> Expedite <input type="checkbox"/> Suspend <input type="checkbox"/> Restore <input type="checkbox"/><br>Sequence <input type="checkbox"/> Coordinated <input type="checkbox"/> Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | E - DT  |
|                          |          | <b>Interconnection Location:</b>   | From: [Customer prem CLLI] To: [AT&T CFA T3 slot]   |
|                          |          | <b>Interconnection Specific:</b>   | CONTIGUOUS  |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           |   |
| <b>Remarks:</b>          |          |                                    | Order modified to reflect different CFA assignment  |

**Element/Combination:** DT - Dedicated Transport

|                         |                                       |
|-------------------------|---------------------------------------|
| <b>Element ID:</b>      | [LEC will return facility name, CLFI] |
| <b>Object:</b>          | DS1                                   |
| <b>Qty/Capacity:</b>    | 1                                     |
| <b>Option:</b>          | Framing: D4                           |
| <b>Characteristics:</b> | Signal: B8ZS                          |
| <b>Features:</b>        |                                       |

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## Unbundled Network Element Provisioning Format

### Example 2

**Purpose of Order:** Route PBX customer's traffic from end-office to PBX trunk group to end-office to 4ESS trunk group in support of LNP

|                          |          |                                    |  |
|--------------------------|----------|------------------------------------|--|
| <b>Order Activity:</b>   | C        | <b>Order Activity Description:</b> | Modify _____ Cancel _____ Expedite _____ Suspend _____ Restore _____<br>Sequence _____ Coordinated <u>  X  </u> Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | E - LS   |
|                          |          | <b>Interconnection Location:</b>   | From: [LEC Switch CLLI] To: [LEC-Switch-to-AT&T-4ESS TSG designation]  |
|                          |          | <b>Interconnection Specific:</b>   | ROUTING  |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           | Activate routing in coordination with AT&T contact   |
| <b>Remarks:</b>          |          |                                    |  |

**Element/Combination:** LS - Local Switching

|                         |   |
|-------------------------|---|
| <b>Element ID:</b>      | [LEC Switch CLLI]                             |
| <b>Object:</b>          | LNP   |
| <b>Qty/Capacity:</b>    | N/A   |
| <b>Option:</b>          | RIPH (Route Index Portability Hub)            |
| <b>Characteristics:</b> | [Ported Numbers]<br>Number of call paths: max |
| <b>Features:</b>        |   |

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**Unbundled Network Element Provisioning Format**

**Example 3**

**Purpose of Order:** Suspend Local Switching functionality

|                          |     |                                    |  |
|--------------------------|-----|------------------------------------|--|
| <b>Order Activity:</b>   | C   | <b>Order Activity Description:</b> | Modify ____ Cancel ____ Expedite ____ Suspend <u>X</u> Restore ____<br>Sequence ____ Coordinated ____ Associated Order(s): |
|                          |     | <b>Type Element/Comb:</b>          | E - LS   |
|                          |     | <b>Interconnection Location:</b>   | Inclusive: [LEC Switch CLLI]   |
|                          |     | <b>Interconnection Specific:</b>   | FUNCTIONALLY INCLUSIVE   |
| <b>Desired Due Date:</b> | NOW | <b>Due Date Details:</b>           |  |
| <b>Remarks:</b>          |     |                                    | Suspend all functionally except access to E911   |

**Element/Combination:** LS - Local Switching

|                         |      |
|-------------------------|------|
| <b>Element ID:</b>      | WTN  |
| <b>Object:</b>          | Line |
| <b>Qty/Capacity:</b>    | 1    |
| <b>Option:</b>          | POTS |
| <b>Characteristics:</b> |      |
| <b>Features:</b>        |      |

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**Unbundled Network Element Provisioning Format**

**Example 4**

**Purpose of Order:** Add LEC signaling access/capability to AT&T Switch

|                          |          |                                    |   |
|--------------------------|----------|------------------------------------|---|
| <b>Order Activity:</b>   | A        | <b>Order Activity Description:</b> | Modify ____ Cancel ____ Expedite ____ Suspend ____ Restore ____<br>Sequence ____ Coordinated __X__ Associated Order(s):     |
|                          |          | <b>Type Element/Comb:</b>          | E - SS  |
|                          |          | <b>Interconnection Location:</b>   | Inclusive: [Rate Center] From: [STP CLLI pair] To: [AT&T POP CLLI and DSX tie down]<br>To: [AT&T POP CLLI and DSX tie down] |
|                          |          | <b>Interconnection Specific:</b>   | CONTIGUOUS, FUNCTIONALLY INCLUSIVE, ROUTING   |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           | Turn up signaling network in coordination with AT&T contact   |
| <b>Remarks:</b>          |          |                                    |   |

**Element/Combination:** SS -Signal Transfer Points

|                         |   |
|-------------------------|---|
| <b>Element ID:</b>      | [STP CLLI pair]<br>[Circuit ID's for links] |
| <b>Object:</b>          | A-link                                      |
| <b>Qty/Capacity:</b>    | 2 (pair)                                    |
| <b>Option:</b>          | DS0   |
| <b>Characteristics:</b> |   |
| <b>Features:</b>        |   |

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**Unbundled Network Element Provisioning Format**

**Example 5**

*Purpose of Order:* Update ALI/DMS (E911) database with new customer information

|                          |          |                                    |  |
|--------------------------|----------|------------------------------------|--|
| <b>Order Activity:</b>   | C        | <b>Order Activity Description:</b> | Modify ____ Cancel ____ Expedite ____ Suspend ____ Restore ____<br>Sequence ____ Coordinated <u>X</u> Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | E - DB   |
|                          |          | <b>Interconnection Location:</b>   | Inclusive: [Rate Center served by ALI/DMS database]  |
|                          |          | <b>Interconnection Specific:</b>   | FUNCTIONALLY INCLUSIVE   |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           | Activate new database entry in coordination with AT&T contact  |
| <b>Remarks:</b>          |          |                                    |  |

**Element/Combination:** DB - SCPs/Database

|                         |                                     |
|-------------------------|-------------------------------------|
| <b>Element ID:</b>      | WTN                                 |
| <b>Object:</b>          | E911 (ALI/DMS)                      |
| <b>Qty/Capacity:</b>    | 1                                   |
| <b>Option:</b>          | Customer                            |
| <b>Characteristics:</b> | [New customer-specific information] |
| <b>Features:</b>        |                                     |

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**Unbundled Network Element Provisioning Format**

**Example 6**

**Purpose of Order:** Disconnect Local Switching

|                          |          |                                    |   |
|--------------------------|----------|------------------------------------|---|
| <b>Order Activity:</b>   | D        | <b>Order Activity Description:</b> | Modify ____ Cancel ____ Expedite ____ Suspend ____ Restore ____<br>Sequence ____ Coordinated __X__ Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | E - DB  |
|                          |          | <b>Interconnection Location:</b>   | Inclusive: [LEC Switch CLLI]  |
|                          |          | <b>Interconnection Specific:</b>   | FUNCTIONALLY INCLUSIVE  |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           | Disconnect in coordination with AT&T contact  |
| <b>Remarks:</b>          |          |                                    |   |

**Element/Combination:** LS - Local Switching

|                         |      |
|-------------------------|------|
| <b>Element ID:</b>      | WTN  |
| <b>Object:</b>          | Line |
| <b>Qty/Capacity:</b>    | 1    |
| <b>Option:</b>          | POTS |
| <b>Characteristics:</b> |      |
| <b>Features:</b>        |      |

**Unbundled Combination Provisioning Format**

**Loop Combination Functionality**

| <b>Activity<br/>(one of)</b> | <b>Type</b> | <b>Interconnection<br/>Location</b>     | <b>Interconnection<br/>Specific</b> | <b>Element ID</b> | <b>Object (One of)</b> | <b>Option (one<br/>of)</b> | <b>Characteristics</b>  |
|------------------------------|-------------|---|-------------------------------------|-------------------|------------------------|----------------------------|---|
| A,C,D,R                      | LOOP        | Customer<br>Address<br><br>LSO CLLI/POT | CONTIGUOUS                          | Loop ID           | Digital                | 2-wire<br>4-wire           | ISDN Conditioned<br>DS1 Conditioned<br>Non-concentrated<br>Max-concentration<br>Interface rate<br>Interface protocol<br>(TR08, TR303)   |
|                              |             |   |                                     |                   | Analog                 | 2-wire<br>4-wire           | Non-concentrated<br>Max-concentration<br>Interface rate<br>Interface protocol<br>(TR08, TR303)<br>Analog interface<br>Digital interface |

### Unbundled Combination Provisioning Format

#### Example 1

**Purpose of Order:** LOOP Combination - Add ISDN Loop Combination

|                          |          |                                    |  |
|--------------------------|----------|------------------------------------|--|
| <b>Order Activity:</b>   | A        | <b>Order Activity Description:</b> | Modify ____ Cancel ____ Expedite ____ Suspend ____ Restore ____<br>Sequence ____ Coordinated <u>X</u> Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | C - LOOP   |
|                          |          | <b>Interconnection Location:</b>   | From: [Customer location] To: [LSO CLLI, AT&T DSX frame tie down]  |
|                          |          | <b>Interconnection Specific:</b>   | CONTIGUOUS   |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           | Swing loop in coordination with AT&T contact   |
| <b>Remarks:</b>          |          |                                    |  |

**Element/Combination:** LOOP - Loop

|                         |  |
|-------------------------|--|
| <b>Element ID:</b>      | [LEC will return Loop ID]  |
| <b>Object:</b>          | Digital  |
| <b>Qty/Capacity:</b>    | 1  |
| <b>Option:</b>          | 2-wire   |
| <b>Characteristics:</b> | ISDN conditioned<br>Non-concentrated<br>Interface rate: DS1<br>Interface protocol: TR303 |
| <b>Features:</b>        |  |

### Unbundled Combination Provisioning Format

#### Example 2

*Purpose of Order:* LOOP and Switching Combination

|                          |          |                                    |  |
|--------------------------|----------|------------------------------------|--|
| <b>Order Activity:</b>   | A        | <b>Order Activity Description:</b> | Modify ____ Cancel ____ Expedite ____ Suspend ____ Restore ____<br>Sequence ____ Coordinated <u>X</u> Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | C - LOOP/LS  |
|                          |          | <b>Interconnection Location:</b>   | From: [Customer prem] To: [LSO CLLI, AT&T IDF frame tie down]  |
|                          |          | <b>Interconnection Specific:</b>   | CONTIGUOUS, ROUTING  |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           | Swing loop and activate remote call forward simultaneously   |
| <b>Remarks:</b>          |          |                                    |  |

| <i>Element/Combination:</i> LOOP - Loop |                           | <i>Element/Combination:</i> LS - Local Switching |  |
|---|---------------------------|--|--|
| <b>Element ID:</b>                      | [LEC will return loop ID] | <b>Element ID:</b>                               | [LEC Switch CLLI]                          |
| <b>Object:</b>                          | Analog                    | <b>Object:</b>                                   | LNP  |
| <b>Qty/Capacity:</b>                    | 1                         | <b>Qty/Capacity:</b>                             | N/A  |
| <b>Option:</b>                          | 2-wire                    | <b>Option:</b>                                   | RCF  |
| <b>Characteristics:</b>                 | Interface: Analog         | <b>Characteristics:</b>                          | [Shadow number]<br>Number of call paths: 2 |
| <b>Features:</b>                        |                           | <b>Features:</b>                                 |  |

**Unbundled Combination Provisioning Format**

**Example 3**

**Purpose of Order:** Local Switching Conditioning Combination

|                          |          |                                    |  |
|--------------------------|----------|------------------------------------|--|
| <b>Order Activity:</b>   | <b>A</b> | <b>Order Activity Description:</b> | <b>Modify</b> ____ <b>Cancel</b> ____ <b>Expedite</b> ____ <b>Suspend</b> ____ <b>Restore</b> ____<br><b>Sequence</b> ____ <b>Coordinated</b> ____ <b>Associated Order(s):</b> |
|                          |          | <b>Type Element/Comb:</b>          | C - LS/CT/SS/DB/TS   |
|                          |          | <b>Interconnection Location:</b>   | Inclusive: [NPA]   |
|                          |          | <b>Interconnection Specific:</b>   | FUNCTIONALLY INCLUSIVE   |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           |  |
|                          |          | <b>Remarks:</b>                    | Prepare NPA for AT&T use of all Local Switching, Common Transport, Signaling, Database and Tandem Switching elements.<br><br>Return AT&T Line Class Codes for all switches     |

### Unbundled Combination Provisioning Format

#### Example 4

**Purpose of Order:** Toll Traffic Combination 1 - Add toll trunking and transport between LEC end office and AT&T Switch

|                          |          |                                    |  |
|--------------------------|----------|------------------------------------|--|
| <b>Order Activity:</b>   | A        | <b>Order Activity Description:</b> | Modify ____ Cancel ____ Expedite ____ Suspend ____ Restore ____<br>Sequence ____ Coordinated <u>X</u> Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | C - DT/LS  |
|                          |          | <b>Interconnection Location:</b>   | From: [LEC Switch CLLI] To: [CFA T3 slot]  |
|                          |          | <b>Interconnection Specific:</b>   | CONTIGUOUS, FUNCTIONALLY INCLUSIVE, ROUTING  |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           | Do not activate routing until notified by AT&T contact   |
| <b>Remarks:</b>          |          |                                    |  |

**Element/Combination:** DT - Dedicated Transport

**Element/Combination:** LS - Local Switching

|                         |                                       |                         |  |
|-------------------------|---------------------------------------|-------------------------|--|
| <b>Element ID:</b>      | [LEC will return facility name, CLFI] | <b>Element ID:</b>      | [LEC will return TSG designation]                            |
| <b>Object:</b>          | DS1                                   | <b>Object:</b>          | Network Trunk  |
| <b>Qty/Capacity:</b>    | 1                                     | <b>Qty/Capacity:</b>    | 24   |
| <b>Option:</b>          | Framing: ESF                          | <b>Option:</b>          | SS7  |
| <b>Characteristics:</b> | Signal: B8ZS                          | <b>Characteristics:</b> | Two-way<br>[Screening]<br>[TSG characteristics]<br>[Routing] |
| <b>Features:</b>        |                                       | <b>Features:</b>        |  |

**Unbundled Combination Provisioning Format**

**Example 5**

**Purpose of Order:** Cancel order to Add trunking and transport between LEC end-office and AT&T OSPS Switch

|                          |          |                                    |  |
|--------------------------|----------|------------------------------------|--|
| <b>Order Activity:</b>   | A        | <b>Order Activity Description:</b> | Modify ____ Cancel <u>X</u> Expedite ____ Suspend ____ Restore ____<br>Sequence ____ Coordinated ____ Associated Order(s): |
|                          |          | <b>Type Element/Comb:</b>          | C - DT/LS  |
|                          |          | <b>Interconnection Location:</b>   | From: [LEC Switch CLLI] To: [AT&T POP CLLI and DSX tie down]   |
|                          |          | <b>Interconnection Specific:</b>   | CONTIGUOUS, FUNCTIONALLY INCLUSIVE   |
| <b>Desired Due Date:</b> | 11/03/96 | <b>Due Date Details:</b>           |  |
| <b>Remarks:</b>          |          |                                    |  |

**Element/Combination:** DT - Dedicated Transport

**Element/Combination:** LS - Local Switching

|                         |                                       |                         |   |
|-------------------------|---------------------------------------|-------------------------|---|
| <b>Element ID:</b>      | [LEC will return facility name, CLFI] | <b>Element ID:</b>      | [LEC will return TSG designation]                                     |
| <b>Object:</b>          | DS1                                   | <b>Object:</b>          | Network Trunk   |
| <b>Qty/Capacity:</b>    | 2                                     | <b>Qty/Capacity:</b>    | 48  |
| <b>Option:</b>          | Framing: D4                           | <b>Option:</b>          | SS7   |
| <b>Characteristics:</b> | Signal: B8ZS                          | <b>Characteristics:</b> | One-way (out from LEC switch)<br>[Screening]<br>[TSG characteristics] |
| <b>Features:</b>        |                                       | <b>Features:</b>        |   |

**Unbundled Combination Provisioning Format**

**ATTACHMENT 5**  
**MAINTENANCE**  
**FOR**  
**LOCAL SERVICES RESALE**  
**AND**  
**UNBUNDLED ELEMENTS**  
**TABLE OF CONTENTS**

MAINTENANCE..... 1

**MAINTENANCE**

1. GTE shall provide repair, maintenance, testing, and surveillance for all Local Services and unbundled Network Elements and Combinations in accordance with the terms and conditions of this Attachment.
2. GTE shall cooperate with AT&T to meet maintenance standards for all Local Services and unbundled Network Elements and Combinations ordered under this Agreement, as specified in Section 9 of this Attachment. Such maintenance standards shall include, without limitation, standards for testing, network management, call gapping, and notification of upgrades as they become available.
3. GTE and AT&T agree to work together in the OBF to establish uniform industry standards for such Electronic Interfaces. Until such time as such standards have been developed and implemented, GTE shall cooperate with AT&T to establish a real-time, Electronic Interface for gateway or automated access by AT&T to GTE's maintenance systems and databases, in order to allow AT&T maintenance personnel and customer service representatives to perform the following functions for AT&T Customers: the ability to enter a new trouble ticket into the GTE maintenance system for an AT&T Customer; the ability to retrieve and track current status on all AT&T Customer repair tickets; the ability to receive "estimated time to repair" ("ETTR") on a real-time basis; the ability to receive immediate notification in the event a repair person is unable to be present for, or anticipates missing, a scheduled repair appointment; and the ability to retrieve all applicable time and material charges at the time of ticket closure (itemized by time spent, price of materials used, procedures employed, amounts incurred in each such category, and total by customer, per event).
4. All GTE service technicians who provide repair service for AT&T Customers shall follow specific procedures, to be supplied by AT&T, in all their communications with AT&T Customers. At a minimum, the aforementioned procedures and protocol shall assume that: GTE technicians shall provide repair service that is at least equal in quality to that provided to GTE customers; trouble calls from AT&T Customers shall receive response time priority that is at least equal to that of GTE customers and shall be handled on a "first come first served" basis regardless of whether the customer is an AT&T Customer or an GTE customer.
5. GTE shall provide AT&T with the same scheduled and non-scheduled maintenance, including, without limitation, required and recommended maintenance intervals and procedures, for all Local Services, Network Elements and Combinations provided to AT&T under this Agreement that it

currently provides for the maintenance of its own network. GTE shall provide AT&T at least sixty (60) days' advance notice of any scheduled maintenance activity which may impact AT&T's Customers. Scheduled maintenance shall include, without limitation, such activities as, switch software retrofits, power tests, major equipment replacements and cable rolls. Plans for scheduled maintenance shall include, at a minimum, the following information: location and type of facilities, specific work to be performed, date and time work is scheduled to commence, work schedule to be followed, date and time work is scheduled to be completed, estimated number of work-hours for completion.

6. GTE shall advise AT&T of all non-scheduled maintenance, testing, monitoring, and surveillance activity to be performed by GTE on any network element, including, without limitation, any hardware, equipment, software, or system, providing service functionality which may potentially impact AT&T Customers. GTE shall provide the maximum advance notice of such non-scheduled maintenance and testing activity possible, under the circumstances; provided, however, that GTE shall provide emergency maintenance as promptly as possible to maintain or restore service and shall advise AT&T promptly of any such actions it takes.
7. GTE shall provide AT&T with a detailed description of any and all emergency restoration plans and disaster recovery plans, however denominated, which are in place during the term of this Agreement. Such plans shall include, at a minimum, the following: (i) provision for immediate notification to AT&T of the existence, location, and source of any emergency network outage potentially affecting an AT&T Customer, via the Electronic Interface to be established pursuant to Section 3; (ii) establishment of a single point of contact responsible for initiating and coordinating the restoration of all Local Services and Network Elements or Combinations; (iii) methods and procedures to provide AT&T with real-time access to information relating to the status of restoration efforts and problem resolution during the restoration process; (iv) an inventory and description of mobile restoration equipment, by location; (v) methods and procedures for the dispatch of mobile equipment to the restoration site; (vi) methods and procedures for reprovisioning of all Local Services and Network Elements or Combinations after initial restoration; (vii) equal priority, as between AT&T Customers and GTE customers, for restoration efforts, consistent with FCC Service Restoration guidelines, including, without limitation, deployment of repair personnel, and access to spare parts and components; and (viii) a mutually agreeable process for escalation of maintenance problems, including a complete, up-to-date list of responsible contacts, each available twenty-four (24) hours per day, seven (7) days per week. Said plans shall be modified and up-dated as needed. For purposes of this subsection, an emergency network outage is defined as 5,000 or more blocked call attempts in a ten (10) minute period in a single

exchange. GTE shall provide timely notification to AT&T of any outage or potential outage which has, or is likely to have, an effect on AT&T or AT&T Customers, including but not limited to:

- Central office outages;
- Facility outages such as cable cuts, repeater failures, etc.;
- Commercial power outages;
- Load sharing situations;
- Subscriber loop problems;
- Signaling network congestion; and
- General network congestion

8. GTE and AT&T shall establish mutually acceptable methods and procedures for the immediate, on-line transfer from GTE to AT&T, and vice versa, of any and all misdirected calls from customers requesting repair.
9. GTE's repair bureau shall conform to the following performance and service quality standards when providing repair and maintenance to AT&T and AT&T Customers under this Agreement:
  - 9.1 If service is provided to AT&T Customers before an Electronic Interface is established between AT&T and GTE, AT&T will transmit repair calls to the GTE repair bureau by telephone. In such event, the following standards shall apply: The GTE repair bureau shall answer its telephone and begin taking information from AT&T within twenty (20) seconds of the first ring, ninety-five percent (95%) of the time; within thirty (30) seconds of the first ring, ninety-eight percent (98%) of the time; and within forty (40) seconds of the first ring, one hundred percent (100%) of the time. Calls answered by automated response systems, and calls placed on hold, shall be considered not to meet these standards.
  - 9.2 GTE's repair bureau, including the Electronic Interface to be established pursuant to Section 3 preceding, shall be on-line and operational twenty-four (24) hours per day, seven (7) days per week. AT&T and GTE will develop mutually agreed-upon manual processes for repair reporting in the event of unavailability or failure of the Electronic Interface.
  - 9.3 GTE's repair bureau shall provide to AT&T the "estimated time to restore," with at least ninety-nine percent (99%) percent accuracy.
  - 9.4 In the event the "estimated time to restore" has been missed, GTE shall notify AT&T to that effect within one (1) hour.

- 9.5 Emergency network outages, as defined in Section 7 preceding, shall be restored within one (1) hour. The only exception to this shall be in the case of a Force Majeure event affecting an entire exchange.
- 9.6 Where an outage has not reached the threshold defining an emergency network outage, the following quality standards shall apply with respect to restoration of Local Service and Network Elements or Combination:
- Total outages requiring a premises visit by a GTE technician that are received between 8 a.m. to 6 p.m. on any day shall be restored within four (4) hours of referral, ninety percent (90%) of the time; within eight (8) hours of referral, ninety-five percent (95%) of the time; and within sixteen (16) hours of referral, ninety-nine percent (99%) of the time and Mean time to Restore (MTR) within eight (8) hours.
- Total outages requiring a premises visit by a GTE technician that are received between 6 p.m. and 8 a.m. on any day shall be restored during the following 8 a.m. to 6 p.m. period in accordance with the following performance metrics: within four (4) hours of 8 a.m., ninety percent (90%) of the time; within eight (8) hours of 8 a.m., ninety-five percent (95%) of the time; and within sixteen (16) hours of 8 a.m., ninety-nine percent (99%) of the time and MTR within eight (8) hours.
- Total outages which do not require a premises visit by a GTE technician shall be restored within two (2) hours of referral, eighty-five percent (85%) of the time; within three (3) hours of referral, ninety-five percent (95%) of the time; and within four (4) hours of referral, ninety-nine percent (99%) of the time and MTR within two (2) hours.
- 9.7 Trouble calls (e.g., related to Local Service or Network Element or Combination degradation or feature problems) which have not resulted in total service outage shall be resolved within twenty-four (24) hours of referral, ninety-five percent (95%) of the time, irrespective of whether or not resolution requires a premises visit. For purposes of this Section, Local service or a Network Element or Combination is considered restored, or a trouble resolved, when the quality of the Local Service or Network Element or Combination is equal to that provided before the outage, or the trouble, occurred.
- 9.8 Repeat trouble reports from the same customer in a two-month period shall be less than one percent (1%). Repeat trouble reports shall be measured by the number of calls received by the GTE repair bureau relating to the same telephone line during the current and previous report months.

- 9.9 GTE shall provide progress reports and status of repair efforts to AT&T upon request, and at a frequency interval to be determined by AT&T. GTE shall inform AT&T within ten (10) minutes of restoration of Local Service or Network Element or Combination after an outage has occurred. GTE shall clear all repair tickets to the Customer's network interface. GTE shall close all "test OK" ("TOK"), "no trouble found" ("NTF") and "Came Clear" ("CC") repair tickets with the AT&T work centers designated by AT&T. At AT&T's option, AT&T shall contact the Customer to verify that the repair has been effected prior to closing out any repair ticket. GTE shall provide AT&T with a list of any applicable charges, as specified in Part IV of the General terms and Conditions, at the time a repair ticket is closed
- 9.10 GTE shall, upon AT&T's request, become certified under and adhere to ISO 9000 Standards and Certification.
- 9.11 GTE shall create a self-reporting process to AT&T's Repair Center and the above specified quality standards shall be subject to review by GTE and AT&T at least quarterly and subject to modification upon mutual consent.
- 9.12 GTE shall provide AT&T with mutually acceptable escalation procedures to be followed if, in AT&T's judgement, any individual trouble ticket or tickets are not resolved in a timely manner. The escalation procedures to be provided hereunder shall include names and telephone numbers of GTE management personnel who are responsible for maintenance issues.
- 9.13 In the event GTE shall fail to conform to the aforementioned performance and service quality standards, AT&T may request, and GTE shall perform, a root cause analysis of the reason behind GTE's failure to conform, and GTE shall correct said cause as soon as reasonably practical, at its own expense.
- 9.14 Maintenance charges for premises visits by GTE technicians shall be billed by AT&T to its Customer, and not by GTE. The GTE technician shall, however, present the Customer with an AT&T-branded form detailing the time spent, the materials used, and an indication that the trouble has either been resolved, or that additional work will be necessary, in which case, the GTE technician shall make an additional appointment with the Customer. The GTE technician shall obtain the Customer's signature upon said form, and then use the signed form to input maintenance charges into GTE's repair and maintenance database (accessible by way of the Electronic Interface established pursuant to Section 3 preceding).
- 9.15 Dispatching of GTE technicians to AT&T Customer premises shall be accomplished by GTE pursuant to a request received from AT&T. The Electronic Interface established pursuant to Section 3 preceding shall have the capability of allowing AT&T to receive trouble reports, analyze and sectionalize

the trouble, determine whether it is necessary to dispatch a service technician to the Customer's premises, and verify any actual work completed on the Customer's premises.

- 9.16 GTE shall furnish AT&T with a single point of contact ("SPOC") for all communications relating to trouble repair and maintenance.

**ATTACHMENT 6****LOCAL SERVICES, UNBUNDLED NETWORK ELEMENT AND INTERCONNECTION  
BILLING AND RECORDING****TABLE OF CONTENTS**

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**LOCAL SERVICES RESALE, UNBUNDLED NETWORK ELEMENT AND  
INTERCONNECTION BILLING AND RECORDING**

**1. General**

This Attachment describes the requirements for GTE to bill and record all charges AT&T incurs for purchasing wholesale Local Services for resale and Unbundled Network Elements and Combinations, and the billing procedures to be followed when AT&T is Interconnected to GTE Network facilities. The specific requirements for Local Service Billing are set forth in Appendix A; the specific requirements for Unbundled Network Element Billing are set forth in Appendix B; and the specific requirements for Interconnection Billing are set forth in Appendix C.

**2. Additional Requirements**

Additional requirements, which, when applicable, govern Local Service, Unbundled Network Element and Interconnection Bills, and which are necessary to ensure the accurate billing and recording of charges, are set forth below..

**2.1 Bill Accuracy Certification and Validation**

- 2.1.1 The Parties agree that in order to ensure the proper performance and integrity of the entire Billing process, GTE will be responsible and accountable for transmitting to AT&T accurate and current bills. GTE agrees to implement control mechanisms and procedures to render a bill that accurately reflects the Elements, Combination and Local Services ordered and used by AT&T as well as accurate Meet Point Billing Data and Mutual Collection Data. In addition, the following certification procedures shall be followed:
- 2.1.2 AT&T and GTE agree to replicate for the purposes of this Agreement the process and methodology for access certification set forth in the Access Billing Supplier Quality Certification Operating Agreement executed on [ ] by AT&T and GTE which governs the certification of access bills for interLATA and intraLATA calls.
- 2.1.3 Until Bills and Data are certified as provided by Section 12.2 bill and data accuracy will be validated through the following procedures:
- 2.1.4 Subject to GTE's reasonable security requirements and except as may be otherwise specifically provided in this Agreement, AT&T may audit GTE's books, records and other documents once in each Contract Year for the purpose of evaluating the accuracy of GTE's billing, data and invoicing.

AT&T may employ other persons or firms for this purpose. Such audit shall take place at a time and place agreed on by the Parties no later than thirty (30) days after notice thereof to GTE.

- 2.1.5 GTE shall promptly correct any error that is revealed in an audit, including making refund of any overpayment by AT&T in the form of a credit on the invoice for the first full billing cycle after the Parties have agreed upon the accuracy of the audit results. Any Disputes concerning audit results shall be resolved pursuant to the Alternate Dispute Resolution procedures described in Attachment 1.
- 2.1.6 GTE shall cooperate fully in any such audit, providing reasonable access to any and all appropriate GTE employees and books, records and other documents reasonably necessary to assess the accuracy of GTE's bills, data and invoices.
- 2.1.7 AT&T may audit GTE's books, records and documents more than once during any Contract Year if the previous audit found previously uncorrected net variances or errors in invoices in GTE's favor with an aggregate value of at least two percent (2%) of the amounts payable by AT&T under this Agreement during the period covered by the audit.
- 2.1.8 Audits shall be at AT&T's expense, subject to reimbursement by GTE in the event that an audit finds an adjustment in the charges or in any invoice paid or payable by AT&T hereunder by an amount that is, on an annualized basis, greater than two percent (2%) of the aggregate charges payable by AT&T under this Agreement during the period covered by the audit.
- 2.1.9 Upon (i) the discovery by GTE of overcharges not previously reimbursed to AT&T or (ii) the resolution of disputed audits, GTE shall promptly reimburse AT&T the amount of any overpayment times the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the date of overpayment to and including the date that payment is actually made. In no event, however, shall interest be assessed on any previously assessed or accrued late payment charges.
- 2.1.10 Subject to GTE's reasonable security requirements and except as may be otherwise specifically provided in this Agreement, AT&T may inspect once, in each Contract Year, GTE's books, records and other documents related in any way to the Local Services, Unbundled Network Elements or Combinations provided to AT&T, or to Meet Point Billing and Mutual Compensation, for the purpose of evaluating GTE's compliance with the terms and conditions of this Agreement, in addition to the financial audit rights provided above. AT&T may employ other persons or firms for this purpose.

## **2.2 Payment Of Charges**

- 2.2.1 Subject to the terms of this Agreement, AT&T and GTE will pay each other within thirty (30) calendar days from the Bill Date, or twenty (20) calendar days from the receipt of the bill, whichever is later. If the payment due date is a Sunday or is a Monday that has been designated a bank holiday by the Chase Manhattan Bank of New York (or such other bank as AT&T specifies), payment will be made the next business day. If the payment due date is a Saturday or is on a Tuesday, Wednesday, Thursday or Friday that has been designated a bank holiday by the Chase Manhattan Bank of New York (or such other bank as AT&T specifies), payment will be made on the preceding business day.
- 2.2.2 Payments shall be made in U.S. Dollars via electronic funds transfer ("EFT") to the other party's bank account. At least thirty (30) days prior to the first transmission of Billing data and information for payment, GTE and AT&T shall provide each other the name and address of its bank, its account and routing number and to whom Billing payments should be made payable. If such banking information changes, each party shall provide the other party at least sixty (60) days written notice of the change and such notice shall include the new banking information. The parties will render payment via EFT. AT&T will provide GTE with one address to which such payments shall be rendered and GTE will provide to AT&T with only one address to which such payments shall be rendered. In the event AT&T receives multiple Bills from GTE which are payable on the same date, AT&T may remit one payment for the sum of all payable to GTE's bank account specified in this subsection. Each party shall provide the other party with a contact person for the handling of Billing payment questions or problems.
- ## **2.3 Billing Disputes**
- 2.3.1 Each party agrees to notify the other party upon the discovery of a billing dispute. In the event of a billing dispute, the parties will endeavor to resolve the dispute within sixty (60) calendar days of the Bill Date on which such disputed charges appear. Resolution of the dispute is expected to occur at the first level of management resulting in a recommendation for settlement of the dispute and closure of a specific billing period. The parties shall replicate the bill closure procedures set forth in the Access Billing Supplier Quality Certification Operating Agreement. Closure of a specific billing period will occur by joint agreement of the parties whereby the parties agree that such billing period is closed to any further analysis and financial transactions, except those resulting from an Audit as described in Section 10 of the General Section of this Agreement. Closure will take place within 3 months of the Bill Date. The month being closed represents those Charges that were billed or should have been billed by the respective Bill Date. If the issues are

not resolved within the allotted time frame, the following resolution procedure will begin:

- 2.3.2 If the dispute is not resolved within sixty (60) days of the Bill Date, the dispute will be escalated to the second level of management for each of the respective parties for resolution.
- 2.3.3 If the dispute is not resolved within ninety (90) days of the Bill Date, the dispute will be escalated to the third level of management for each of the respective parties for resolution.
- 2.3.4 If the dispute is not resolved within one hundred and twenty (120) days of the Bill Date, the dispute will be escalated to the fourth level of management for each of the respective parties for resolution.
- 2.3.5 If the dispute is not resolved within one hundred and fifty (150) days of the Bill Date, the dispute will be resolved in accordance with the procedures set forth in the Section 1613 of the General Terms and Conditions Section of this Agreement.
- 2.3.6 If a party disputes a Charge and does not pay such charge by the payment due date, such charges shall be subject to late payment charges as set forth in the Late Payment Charges provision of this Attachment. If a party disputes Charges and the dispute is resolved in favor of such party, the other party shall credit the Bill of the disputing party for the amount of the disputed charges along with any late payment charges assessed no later than the second Bill Date after the resolution of the dispute. Accordingly, if a party disputes Charges and the dispute is resolved in favor of the other party, the disputing party shall pay the other party the amount of the disputed charges and any associated late payment charges assessed no later than the second bill payment due date after the resolution of the dispute. In no event, however, shall any late payment charges be assessed on any previously assessed late payment charges.

## **2.4 Late Payment Charges**

- 2.4.1 If either party fails to remit payment for any Charges described in this Attachment by the payment due date, or if a payment or any portion of a payment is received by either party after the payment due date, or if a payment or any portion of a payment is received in funds which are not immediately available to the other party, then a late payment penalty shall be assessed. The late payment charge shall be calculated based on the portion of the payment not received by the payment date times the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the payment date

to and including the date that payment is actually made. In no event, however, shall interest be assessed on any previously assessed late payment charges.

## **2.5 Recording Of Call Information**

2.5.1 The parties agree to record call information in accordance with this subsection. To the extent technically feasible, each party will record all call detail information associated with every call originated or terminated to the other party's local exchange customer. The parties agree that they will record call detail information if technically feasible even if such certain records or call detail information has not been recorded in the past. These records shall be provided at a party's request and shall be formatted pursuant to Bellcore standards and the terms and conditions of this Attachment. These records shall be transmitted to the other party daily in EMR format via Connect:Direct, provided however that if AT&T and GTE do not have Connect:Direct capabilities, such records shall be transmitted as the parties agree. GTE and AT&T agree that they will retain, at each party's sole expense, copies of all AMA records transmitted to the other party for at least seven (7) calendar days after transmission to the other party.

2.5.2 Each party will provide the other party with a carrier identification code ("CIC") on each EMR record transmitted to the other party. If GTE does not have a CIC for any local exchange carrier, ALEC or IXC for whom GTE must supply to AT&T Connectivity Billing records or information pursuant to this Attachment, GTE agrees that it will assist the local exchange carrier, ALEC or IC in obtaining a CIC expeditiously. Until the local exchange carrier, ALEC or IXC has received a CIC, GTE agrees that it will submit its CIC to AT&T on those records for billing and payment. GTE further agrees that it will then be responsible for obtaining reimbursement for the respective charges from the appropriate carrier. Likewise, if AT&T does not have a CIC for any local exchange carrier, ALEC or IXC for whom AT&T must supply to GTE Billing records or information pursuant to this Attachment, AT&T agrees that it will assist the local exchange carrier, ALEC or IXC in obtaining a CIC expeditiously. Until the local exchange carrier, ALEC or IXC has received a CIC, AT&T agrees that it will submit its CIC to LEC on those records for billing and payment. AT&T further agrees that it will then be responsible for obtaining reimbursement for the respective charges from the appropriate carrier.

2.5.3 The parties agree that it will meet the following performance measurements for the provision of EMR records:

2.5.3.1 Timeliness: Of the total number of records recorded each day, 99% of all such records should be received within five (5) calendar days of their

recording. Of the total number of records recorded each day, 100% of all such records should be received within ten (10) calendar days of their recording.

- 2.5.3.2 Accuracy: There should be no more than 60 errors per one (1) million records transmitted.
- 2.5.3.3 Completeness: There should be no more than 20 omissions per one (1) million records.
- 2.5.4 The parties agree that they will provide each other a single person to contact regarding any data exchange problems.

## 2.6 Examination Of Records

- 2.6.1 Without waiver of and in addition to the Audit rights in the General part of this Agreement, upon reasonable notice and at reasonable times and in accordance with the Access Billing Supplier Quality Certification Operating Agreement, AT&T or its authorized representatives may examine LEC's documents, systems, records and procedures which relate to the billing and recording of the Charges to AT&T under this Attachment 6.

**ATTACHMENT 6A****LOCAL SERVICES RESALE, BILLING AND RECORDING****TABLE OF CONTENTS**

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**APPENDIX A****LOCAL SERVICE RESALE BILLING AND RECORDING****1. General**

This Section describes the specific requirements for GTE to bill and record all charges AT&T incurs for purchasing wholesale Local Services for resale

**2. Billable Information And Charges**

- 2.1 GTE will bill and record in accordance with this Agreement those charges AT&T incurs as a result of AT&T purchasing from GTE wholesale Local Services, as set forth in this Agreement (hereinafter "Local Service Charges"). Each Local Service, purchased by AT&T shall be assigned a separate and unique billing code in the form agreed to by the parties and such code shall be provided to AT&T on each Local Service Bill in which charges for such Elements, Combinations, or Local Services appear. Each such billing code shall enable AT&T to identify the Local Services ordered or utilized by AT&T in which Local Service Charges apply pursuant to this Agreement. Each Local Service Bill shall set forth the quantity and description of each such Local Service provided and billed to AT&T. All Local Service Charges billed to AT&T must indicate the state from which such charges were incurred.
- 2.2 GTE shall provide AT&T a monthly Local Service Bill that includes all Local Service Charges incurred by and credits and/or adjustments due to AT&T for those Local Services ordered, established, utilized, discontinued or performed pursuant to this Agreement. Each Local Service Bill provided by GTE to AT&T shall include: (1) all non-usage sensitive charges incurred for the period beginning with the day after the current bill date and extending to, and including, the next bill date, (2) any known unbilled non-usage sensitive charges for prior periods, (3) unbilled usage sensitive charges for the period beginning with the last bill date and extending up to, but not including, the current bill date, (4) any known unbilled usage sensitive charges for prior periods, and (5) any known unbilled adjustments. The Local Service Bill shall also include all charges for Primary Interchange Carrier (PIC) changes as a separate item defined by billing telephone number and any associated working telephone number.
- 2.3 The Bill Date, as defined herein, must be present on each bill transmitted by GTE to AT&T. Local Service Bills shall not be rendered for any Local Service Charges which are incurred under this Agreement on or before one (1) year

preceding the Bill Date. In addition, on each bill where "Jurisdiction" is identified, local and local toll charges shall be identified as "Local" and not as interstate, interstate/ interLATA, intrastate, or intrastate/intraLATA.

- 2.4 GTE shall bill AT&T for any wholesale Local Service, supplied by GTE to AT&T pursuant to this Agreement at the rates set forth in this Agreement. GTE will bill AT&T based on the actual Local Service Charges incurred, provided, however, for those usage based Local Service Charges where actual charge information is not determinable by GTE because the jurisdiction (i.e., interstate, interstate/interLATA, intrastate, intrastate/intraLATA, local) of the traffic is unidentifiable, the parties will jointly develop a process to determine the appropriate charges. Measurement of usage-based Local Service Charges shall be in actual conversation seconds. The total conversation seconds per chargeable traffic types will be totalled for the entire monthly bill cycle and then rounded to the next whole minute.
- 2.5 Except as otherwise specified in this Agreement, each party shall be responsible for (1) all costs and expenses it incurs in complying with its obligations under this Agreement and (2) the development, modification, technical installation and maintenance of any systems or other infrastructure which it requires to comply with and to continue complying with its responsibilities and obligations under this Agreement.
- 2.6 Each party shall provide the other party at no additional charge a contact person for the handling of any Local Service Billing questions or problems that may arise during the implementation and performance of the terms and conditions of this Attachment.

### 3. Issuance of Local Service Bills - General

- 3.1 GTE and AT&T shall issue Local Service Bills as follows:
- 3.1.1 Until July 1, 1998, GTE and AT&T shall issue Local Service Bills via paper in accordance with CBSS and the requirements of this Attachment. Provided that GTE and AT&T agree to jointly develop a mechanized Alternative Interim Agreement for the issuance of Local Service Bills to replace the CBSS until Local Service Bills are issued in accordance with CABS on July 1, 1998 as provided in this Appendix.
- 3.1.2 After July 1, 1998, GTE and AT&T shall issue all Local Service Bills in accordance with CABS Version 26.0, or such later version of CABS that are published by Bellcore, or its successor, and the requirements of this Appendix.

- 3.2 GTE and AT&T will establish monthly billing dates ("Bill Date") for each Billing Account Number ("BAN"), and, when appropriate, as further defined in the CABS document, which Bill Date shall be the same day month to month. Each BAN shall remain constant from month to month, unless changed as agreed to by the parties. Each party shall provide the other party at least thirty (30) calendar days written notice prior to changing, adding or deleting a BAN. The parties will provide one Local Service Billing invoice associated with each BAN. Each invoice must contain an invoice number (which will vary from month to month). On each bill associated with a BAN, the appropriate invoice number and the charges contained on such invoice must be reflected. All Local Service Bills must be received by the other party no later than ten (10) calendar days from Bill Date and at least twenty (20) calendar days prior to the payment due date (as described in this Attachment), whichever is earlier. Any Local Service Bill received on a Saturday, Sunday or a day designated as a holiday by the Chase Manhattan Bank of New York (or such other bank as AT&T shall specify) will be deemed received the next business day. If either party fails to receive Local Service Billing data and information within the time period specified above, the payment due date will be extended by the number of days the Local Service Bill is late.
- 3.3 Each party will provide the other party written notice of which Local Service Bills are to be deemed the official bills to assist the parties in resolving any conflicts that may arise between the official bills and other bills received via a different media which purportedly contain the same charges as are on the official bill. If either party requests an additional copy(ies) of a bill, such party shall pay the other party a reasonable fee per additional bill copy, unless such copy was requested due to errors, omissions, or corrections or the failure of the transmission to comply with the specifications set forth in this Agreement.
- 3.4 To avoid transmission failures or the receipt of Local Service Billing information that cannot be processed, the parties shall provide each other with their respective process specifications and edit requirements. AT&T shall comply with GTE's processing specifications when AT&T transmits Local Service Billing data to GTE. GTE shall comply with AT&T's processing specifications when GTE transmits Local Service Billing data to AT&T. AT&T and GTE shall provide each other reasonable notice if a Local Service Billing transmission is received that does not meet such party's specifications or that such party cannot process. Such transmission shall be corrected and resubmitted to the other party, at the resubmitting party's sole expense, in a form that can be processed. The payment due date for such resubmitted transmissions will be twenty (20) days from the date that the transmission is received in a form that can be processed and that meets the specifications set forth in this Attachment.

**4. Electronic Transmissions of Local Services Bills**

- 4.1 GTE and AT&T agree that after July 1, 1998 each Party will transmit Billing information and data in the appropriate CABS format electronically via Connect: Direct (formerly known as Network Data Mover) to the other Party at the location specified by the Party. The parties agree that a T1.5 or 56kb circuit to Gateway for Connect: Direct is required. AT&T data centers will be responsible for originating the calls for data transmission via switched 56kb or T1.5 lines. If GTE has an established Connect: Direct link with AT&T, that link can be used for data transmission if the location and applications are the same for the existing link. Otherwise, a new link for data transmission must be established. GTE must provide AT&T/Alpharetta its Connect: Direct Node ID and corresponding VTAM APPL ID before the first transmission of data via Connect:Direct. AT&T's Connect: Direct Node ID is "NDMATTA4" and VTAM APPL ID is "NDMATTA4" and must be included in LEC's Connect:Direct software. AT&T will supply to GTE its RACF ID and password before the first transmission of data via Connect:Direct. Any changes to either party's Connect: Direct Node ID must be sent to the other party no later than twenty-one (21) calendar days before the changes take effect.

- 4.2 The following dataset format shall be used as applicable for those Charges transmitted via Connect:Direct in CABS format:

**Production Dataset**

|                          |  |
|--------------------------|--|
| AF25.AXXXXYYY.AZZZ.DDDEE | Production Dataset Name  |
| AF25=                    | Job Naming Convention  |
| AXXX=                    | Numeric Company Code   |
| YYY=                     | LEC Remote   |
| AZZZ=                    | RAO (Revenue Accounting Office)  |
| DDD=                     | BDT (Billing Data Tape with or without CSR)<br>Or<br>CSR (Customer Service Record) |
| EE=                      | 01 thru 31 (Bill Period) (optional)<br>Or<br>GA (US Postal-State Code)             |

**Test Dataset**

|                      |                       |
|----------------------|-----------------------|
| AF25.ATEST.AXXXX.DDD | Test Dataset Name     |
| AF25.ATEST=          | Job Naming Convention |

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|       |  |
|-------|--|
| AXXX= | Numeric Company Code   |
| DDD=  | BDT (Billing Data Tape with or without CSR)<br>Or<br>CSR (Customer Service Record) |

4.2.1 GTE agrees that if it transmits data to AT&T in a mechanized format utilizing CABS, GTE will also comply with the following specifications which are not contained in CABS guidelines but which are necessary for AT&T to process Billing information and data:

- The BAN shall not contain embedded spaces or low values.
- The Bill Date shall not contain spaces or non-numeric values.
- Each Bill must contain at least one detail record.
- Any "From" Date should be less than the associated "Thru" Date and neither date can contain spaces.
- The Invoice Number must not have embedded spaces or low values.

5. **Interim Paper Transmissions and Alternative Interim Arrangement Transmissions for Local Services Bills**

5.1 Until an Alternative Arrangement is developed pursuant to Section 3.1.1 of this Appendix, or until July 1, 1998 when Electronic Transmissions will be utilized pursuant to Section 4 of this Appendix the Parties will transmit billing information to each other via paper. Local Service billing information and data contained on paper for payment shall be sent to the parties at the following locations.

**TO AT&T:**

|  |  |
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|                                    |  |
|------------------------------------|--|
| Paper Transmissions via U.S. Mail: | AT&T<br>Caller Service 6908<br>Alpharetta, Georgia 30202<br>Attn: AC&R Access Bill Coordinator |
|------------------------------------|--|

|  |   |
|--|---|
| Paper<br>Transmissions via<br>Overnight<br>Delivery: | AT&T<br>500 North Point Parkway<br>FLOC B1404<br>Alpharetta, Georgia 30302<br>Attn: AC&R Access Bill<br>Coordinator |
|--|---|

**TO GTE:**

|                         |       |
|-------------------------|-------|
|                         | Attn: |
| Paper<br>Transmissions: | Attn: |

- 5.2 If an Alternative Interim Arrangement is developed pursuant to Section 3.1.1 of this Appendix, Local Service Bills will be transmitted in accordance with this Arrangement. In this event, GTE and AT&T agree to promptly provide each other with all the information necessary to accomplish such transmissions.
- 5.3 In addition to other requirements of this Appendix, Local Services Bills transmitted via paper shall contain the following information:
- 5.3.1 Summary bills (totals);
  - 5.3.2 Detail bills (by end office), including
    - 5.3.2.1 Bill telephone number, and
    - 5.3.2.2 Working telephone number;
  - 5.3.3 Monthly Rewiring Charges (Vertical features);
  - 5.3.4 Minutes of use (measured service);
  - 5.3.5 Non-recurring charges (new connections);
  - 5.3.6 PIC Change Charges;
  - 5.3.7 Call Adjustments.

**AT&T PROPRIETARY  
DRAFT FOR DISCUSSION PURPOSES**

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## 6. Testing Requirements

- 6.1 Within thirty (30) days prior to sending any mechanized Bill or data for the first time via electronic transmission (either using CABS or the Alternative Interim Arrangement), GTE shall send to AT&T any Bill data in the appropriate mechanized format ) for testing to ensure that bills can be processed and that bills comply with the requirements of this Attachment. After receipt of the test data from GTE, AT&T will notify GTE if the Billing transmission meets AT&T's testing specifications. If the transmission fails to meet AT&T's testing specifications, GTE shall make the necessary corrections. At least three (3) sets of testing data must meet AT&T's testing specifications prior to GTE sending AT&T a mechanized production Bill and data for the first time via electronic transmission or tape. Thereafter, GTE may begin sending AT&T mechanized production Bills and data on the next Bill Date, or within ten (10) days, whichever is later.
- 6.2 GTE shall provide to AT&T's Company Manager, located at 500 North Point Parkway, FLOC B1104B, Alpharetta, Georgia 30302, GTE's originating or state level company code so that it may be added to AT&T's internal tables at least thirty (30) calendar days prior to testing or prior to a change in GTE's originating or state level company code.
- 6.3 During the testing period, GTE shall transmit to AT&T any Billing data and information via paper transmission. Test tapes shall be sent to AT&T at the following location:

|             |   |
|-------------|---|
| Test Tapes: | AT&T<br>500 North Point Parkway<br>FLOC B1104B<br>Alpharetta, Georgia 30302<br>Attn: Access Bill Testing<br>Coordinator |
|-------------|---|

7. **Adjustments**

Subject to the terms of this Attachment, GTE will reimburse AT&T for incorrect Local Service Billing charges and/or overcharges. Such reimbursements shall be set forth in the appropriate section of the Local Service Bill pursuant to CABS, or Section 5 of this Appendix as appropriate.

**ATTACHMENT 6B****UNBUNDLED NETWORK ELEMENTS BILLING AND RECORDING****TABLE OF CONTENTS**

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**APPENDIX B****UNBUNDLED NETWORK ELEMENT BILLING AND RECORDING****1. General**

This Section describes the requirements specific for GTE to bill and record all charges AT&T incurs for purchasing Unbundled Network Elements and/or Combinations of Unbundled Network Elements.

**2. Billable Information And Charges**

- 2.1 GTE will bill and record in accordance with this Agreement those Combinations charges AT&T incurs as a result of AT&T purchasing from GTE Unbundled Network Elements and/or Combinations of Unbundled Network Elements as set forth in this Agreement (hereinafter "Unbundled Network Element Charges"). Each such Element, or Combination thereof purchased by AT&T shall be assigned a separate and unique billing code in the form agreed to by the parties and such code shall be provided to AT&T on each Unbundled Network Element Bill in which charges for such Elements, or Combinations appear. Each such billing code shall enable AT&T to identify the Element(s), or Combinations, Objects and Options as described in the Provisioning Attachment to this Agreement ordered by AT&T ordered or utilized by AT&T in which Unbundled Network Element Charges apply pursuant to this Agreement. Each Unbundled Network Element Bill shall set forth the quantity and description of each such Element, or Combination provided and billed to AT&T. All Unbundled Network Element Charges billed to AT&T must indicate the state from which such charges were incurred.
- 2.2 GTE shall provide AT&T a monthly Unbundled Network Element Bill that includes all Unbundled Network Element Charges incurred by and credits and/or adjustments due to AT&T for those Elements, or Combination thereof, ordered, established, utilized, discontinued or performed pursuant to this Agreement. Each Unbundled Network Element Bill provided by GTE to AT&T shall include: (1) all non-usage sensitive charges incurred for the period beginning with the day after the current bill date and extending to, and including, the next bill date, (2) any known unbilled non-usage sensitive charges for prior periods, (3) unbilled usage sensitive charges for the period beginning with the last bill date and extending up to, but not including, the current bill date, (4) any known unbilled usage sensitive charges for prior periods, and (5) any known unbilled adjustments.

- 2.3 The Bill Date, as defined herein, must be present on each bill transmitted by GTE to AT&T. Unbundled Network Element Bills shall not be rendered for any Unbundled Network Element Charges which are incurred under this Agreement on or before one (1) year preceding the Bill Date. In addition, on each bill where "Jurisdiction" is identified, local and local toll charges shall be identified as "Local" and not as interstate, interstate/ interLATA, intrastate, or intrastate/intraLATA.
- 2.4 GTE shall bill AT&T for each Element, or Combination thereof, supplied by GTE to AT&T pursuant to this Agreement at the rates set forth in this Agreement. GTE will bill AT&T based on the actual Unbundled Network Element Charges incurred, provided, however, for those usage based Unbundled Network Element Charges where actual charge information is not determinable by GTE because the jurisdiction (i.e., interstate, interstate/interLATA, intrastate, intrastate/intraLATA, local) of the traffic is unidentifiable, the parties will jointly develop a process to determine the appropriate charges. Measurement of usage-based Unbundled Network Element Charges shall be in actual conversation seconds. The total conversation seconds per chargeable traffic types will be totalled for the entire monthly bill cycle and then rounded to the next whole minute.
- 2.5 Except as otherwise specified in this Agreement, each party shall be responsible for (1) all costs and expenses it incurs in complying with its obligations under this Agreement and (2) the development, modification, technical installation and maintenance of any systems or other infrastructure which it requires to comply with and to continue complying with its responsibilities and obligations under this Agreement.
- 2.6 Each party shall provide the other party at no additional charge a contact person for the handling of any Unbundled Network Element Billing questions or problems that may arise during the implementation and performance of the terms and conditions of this Attachment.

3. **Collocation**

When AT&T collocates with GTE in LEC's facility as described in this Agreement, capital expenditures (e.g., costs associated with building the "cage"), shall not be included in the Unbundled Network Element Bill provided to AT&T pursuant to this Attachment. All such capital expenses shall be given a unique BAN (as defined in Section 7, below) and invoice number. All invoices for capital expenses shall be sent to the location specified by AT&T for payment. All other non-capital recurring collocation expenses shall be billed to AT&T in accordance with this Agreement. The CABS Billing Output Specifications ("BOS") documents provide the guidelines on how to bill the

Unbundled Network Element Charges associated with collocation. The bill label for those collocation charges shall be entitled "Expanded Interconnection Service." For those nonmechanized Unbundled Network Element bills, the bill label for non-capital recurring collocation expenses shall be entitled "Co-location."

**4. Issuance of Unbundled Network Element Bills - General**

4.1 GTE and AT&T shall issue Unbundled Network Element Bills as follows:

4.1.1 Until July 1, 1998, GTE and AT&T shall issue Unbundled Network Element Bills via paper in accordance with CBSS and the requirements of this Attachment. Provided that GTE and AT&T agree to jointly develop a mechanized Alternative Interim Agreement for the issuance of Unbundled Network Element Bills to replace the CBSS until Unbundled Network Element Bills are issued in accordance with CABS on July 1, 1998 as provided in Section 7.2.2 of this Attachment.

4.1.2 After July 1, 1998, GTE and AT&T shall issue all Unbundled Network Element Bills in accordance with CABS Version 26.0, or such later version of CABS that are published by Belcore, or its successor, and the requirements of this Appendix.

4.2 GTE and AT&T will establish monthly billing dates ("Bill Date") for each Billing Account Number ("BAN"), and, when appropriate, as further defined in the CABS document, which Bill Date shall be the same day month to month. Each BAN shall remain constant from month to month, unless changed as agreed to by the parties. Each party shall provide the other party at least thirty (30) calendar days written notice prior to changing, adding or deleting a BAN. The parties will provide one Unbundled Network Element Billing invoice associated with each BAN. Each invoice must contain an invoice number (which will vary from month to month). On each bill associated with a BAN, the appropriate invoice number and the charges contained on such invoice must be reflected. All Unbundled Network Element Bills must be received by the other party no later than ten (10) calendar days from Bill Date and at least twenty (20) calendar days prior to the payment due date (as described in this Attachment), whichever is earlier. Any Unbundled Network Element Bill received on a Saturday, Sunday or a day designated as a holiday by the Chase Manhattan Bank of New York (or such other bank as AT&T shall specify) will be deemed received the next business day. If either party fails to receive Unbundled Network Element Billing data and information within the time period specified above, the payment due date will be extended by the number of days the Unbundled Network Element Bill is late.

- 4.3 Each party will provide the other party written notice of which Unbundled Network Element Bills are to be deemed the official bills to assist the parties in resolving any conflicts that may arise between the official bills and other bills received via a different media which purportedly contain the same charges as are on the official bill. If either party requests an additional copy(ies) of a bill, such party shall pay the other party a reasonable fee per additional bill copy, unless such copy was requested due to errors, omissions, or corrections or the failure of the transmission to comply with the specifications set forth in this Agreement.
- 4.4 To avoid transmission failures or the receipt of Unbundled Network Element Billing information that cannot be processed, the parties shall provide each other with their respective process specifications and edit requirements. AT&T shall comply with GTE's processing specifications when AT&T transmits Unbundled Network Element Billing data to GTE. GTE shall comply with AT&T's processing specifications when GTE transmits Unbundled Network Element Billing data to AT&T. AT&T and GTE shall provide each other reasonable notice if a Unbundled Network Element Billing transmission is received that does not meet such party's specifications or that such party cannot process. Such transmission shall be corrected and resubmitted to the other party, at the resubmitting party's sole expense, in a form that can be processed. The payment due date for such resubmitted transmissions will be twenty (20) days from the date that the transmission is received in a form that can be processed and that meets the specifications set forth in this Attachment.
5. **Electronic Transmissions of Unbundled Network Element Bills**
- Electronic Transmission of Unbundled Network Elements will be governed by the same standards and conditions applicable to Local Service Bills, as set forth in Appendix A, Section 4.
6. **Interim Paper Transmissions and Alternative Interim Arrangement Transmissions for Unbundled Network Elements**
- 6.1 Until an Alternative Arrangement is developed pursuant to Section 4.1.1 of this Appendix, or until July 1, 1998 when Electronic Transmissions will be utilized pursuant to Section 5 of this Appendix the Parties will transmit billing information to each other via paper, Unbundled Network Element billing information and data contained on paper for payment shall be sent to the parties at the following locations.

**TO AT&T:**

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|  |   |
|--|---|
| Paper<br>Transmissions via<br>U.S. Mail:             | AT&T<br>Caller Service 6908<br>Alpharetta, Georgia 30202<br>Attn: AC&R Access Bill<br>Coordinator                   |
| Paper<br>Transmissions via<br>Overnight<br>Delivery: | AT&T<br>500 North Point Parkway<br>FLOC B1404<br>Alpharetta, Georgia 30302<br>Attn: AC&R Access Bill<br>Coordinator |

**TO GTE:**

|                         |       |
|-------------------------|-------|
|                         | Attn: |
| Paper<br>Transmissions: | Attn: |

6.2 If an Alternative Interim Arrangement is developed pursuant to Section 4.1.1 of this Appendix, Unbundled Network Element Bills will be transmitted in accordance with this Arrangement. In this event, GTE and AT&T agree to promptly provide each other with all the information necessary to accomplish such transmissions.

6.3 In addition to the other requests of this Appendix, Unbundled Network Element Bills transmitted via paper shall contain the following information:

**[To be provided by SMES]**

**AT&T PROPRIETARY  
DRAFT FOR DISCUSSION PURPOSES**

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## 7. **Testing Requirements**

GTE shall adhere to the same testing requirements and specifications for transmitting Unbundled Network Element Bills as applicable to Local Service Bills, as set forth in Appendix A, Section 6.

## 8. **Local Number Portability**

- 8.1 In accordance with the terms and conditions set forth in this Attachment 6, GTE shall record and provide to AT&T all detail information associated with a call to an AT&T local exchange customer whose telephone number has been ported from GTE under INP as further described in the Local Number Portability Attachment to this Agreement.
- 8.2 When an IXC terminates an interLATA or IntraLATA toll call to an AT&T local exchange customer whose telephone number has been ported from LE, the parties agree that AT&T shall receive those IXC access charges associated with end office switching, local transport, RIC and CCL, as appropriate, and such other applicable charges. LEC shall be entitled only to receive any access tandem fees and associated local transport charges, and any INP fees (i.e., such as RCF charges) set forth in this Agreement. When a call for which access charges are not applicable is terminated to an AT&T local exchange customer whose telephone number has been ported from LEC, the parties agree that the mutual compensation arrangements described in this Agreement shall apply.

## 9. **Adjustments**

Subject to the terms of this Attachment, GTE will reimburse AT&T for incorrect Unbundled Network Element Billing charges and/or overcharges; Local Services Elements, or any Combination thereof, ordered or requested but not delivered; interrupted Local Services associated with any Element, or combination thereof; ordered or requested; Elements, or Combination thereof, of poor quality; and installation problems if caused by GTE. Such reimbursements shall be set forth in the appropriate section of the Unbundled

Network Element Bill pursuant to CABS or Section 6 of this Appendix, as appropriate..

**ATTACHMENT 6C**

**INTERCONNECTION BILLING AND RECORDING**

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**APPENDIX C****INTERCONNECTION BILLING AND RECORDING****1. General**

This Section describes the Meet Point Billing and Mutual Compensation requirements applicable when AT&T is Interconnected to GTE network facilities.

**2. Meet Point Billing**

- 2.1 AT&T and GTE will establish meet-point billing ("MPB") arrangements in accordance with the Meet Point Billing guidelines adopted by and contained in the OBF's MECAB and MECOD documents, except as modified herein. Both parties will use their best reasonable efforts, individually and collectively, to maintain provisions in their respective federal and state access tariffs, and/or provisions within the National Exchange Carrier Association ("NECA") Tariff No. 4, or any successor tariff to reflect the MPB arrangements identified in this Agreement, in MECAB and in MECOD.
- 2.2 AT&T and GTE will implement the "Multiple Bill/Multiple Tariff" option in order to bill any interexchange carrier ("IXC") for that portion of the Unbundled Network Elements provided by AT&T or GTE. For all traffic carried over the MPB arrangement, AT&T and GTE shall bill each other all applicable elements at the rates specified in this Agreement. Charges for those Unbundled Network Elements shall be billed as set forth in Appendix B of this Attachment.
- 2.3 GTE shall provide to AT&T the billing name, billing address, and carrier identification code ("CIC") of the IXCs that may utilize any portion of AT&T's network in an AT&T/GTE MPB arrangement in order to comply with the MPB Notification process as outlined in the MECAB document. Such information shall be provided to AT&T in the format set forth by this Attachment. If GTE does not have a CIC for any IXC that will utilize a portion of AT&T's network in an AT&T/GTE MPB arrangement, and for whom GTE must supply to AT&T MPB billing information, GTE agrees that it will assist such carrier in obtaining a CIC expeditiously. Until such carrier has obtained a CIC, GTE will submit LEC's CIC on those MPB records provided to AT&T for MPB. GTE understands and agrees that it will be solely responsible for obtaining any

reimbursements from those carriers who have utilized the jointly provided networks of GTE and AT&T.

- 2.4 GTE and AT&T agree that in an MPB arrangement where one party provides local transport and the other party provides the end office switching, the party who provides the end office switching is entitled to bill any residual interconnection charges ("RIC") and common carrier line ("CCL") charges associated with the traffic. The parties further agree that in those MPB situations where one party sub-tends the other party's access tandem, the party providing the access tandem is only entitled to bill the access tandem fee and any associated local transport charges. The parties also agree that the party who provides the end office switching is entitled to bill end office switching fees, local transport charges, RIC and CCL charges, as appropriate, and such other applicable charges.
- 2.5 GTE and AT&T will record and transmit MPB information in accordance with the standards and in the format set forth in this Attachment. GTE and AT&T will coordinate and exchange the billing account reference ("BAR") and billing account cross reference ("BACR") numbers for the MPB arrangements described in this Attachment. Each party will notify the other if the level of billing or other BAR/BACR elements change, resulting in a new BAR/BACR number.
- 2.6 If MPB data is not processed and delivered by either GTE or AT&T and in turn such party is unable to bill the IXC for the appropriate charges, the party who failed to deliver the data will be held liable for the amount of the unbillable charges.
- 2.7 If MPB data is not submitted within ten (10) days of their recording or is not in the proper format as set forth in this Attachment, and if as a result the other party is delayed in billing the IXC for the appropriate charges it incurs, the delaying party shall pay the other party a late MPB data delivery charge which will be the total amount of the delayed charges times the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the date the MPB charges should have been received to and including the date the MPB charge information is actually received.
- 2.8 Errors in MPB data exchanged by the parties may be discovered by AT&T, GTE or the billable IXC. Both AT&T and GTE agree to provide the other party with notification of any discovered errors within two (2) business days of the

discovery. The other party shall correct the error within eight (8) business days of notification and resubmit the data. In the event the errors cannot be corrected within the time period specified above, the erroneous data shall be considered lost. If MPB data is lost due to inconvertible errors or otherwise, the parties shall follow the procedures set forth in the Customer Billing Data Attachment of this Agreement and compensate the other for the lost MPB billing data.

- 2.9 In the event AT&T purchases from GTE Elements, or Combination thereof, in a LATA other than the LATA to or from which the MPB services are homed and in which GTE operates an access tandem, GTE shall, except in instances of capacity limitations, permit and enable AT&T to sub-tend the GTE access tandem switch(es) nearest to the AT&T rating point(s) associated with the NPA-NXX(s) to/from which the MPB services are homed. In instances of capacity limitation at a given access tandem switch, AT&T shall be allowed to sub-tend the next-nearest GTE access tandem switch in which sufficient capacity is available. The MPB percentages for each new rating point/access tandem pair shall be calculated in accordance with MECAB and MECOD.
- 2.10 Neither AT&T nor GTE will charge the other for the services rendered, or for information required for Collocation as set forth in this Attachment except those MPB charges specifically set forth herein. Both parties will provide the other a single point of contact to handle any MPB questions.

3. **Mutual Compensation**

- 3.1 The parties shall bill each other reciprocal compensation in accordance with the standards set forth in this Agreement for traffic terminated to the other party's customer, where both such customers bear NPA-NXX designations associated with the same LATA or other authorized area (e.g., extended area service zones in adjacent LATAs), including those traffic types that have been traditionally referred to as "local calling", as "extended area service (EAS)", and as "intraLATA toll". Such traffic shall be recorded and transmitted to AT&T in accordance with this Attachment. Further, the traffic exchanged pursuant to this Attachment shall be measured in billing minutes of use and shall be in actual conversation seconds. The total conversation seconds per chargeable traffic type will be totaled for the entire monthly billing cycle and then rounded to the next whole conversation minute. Reciprocal compensation for the termination of this traffic shall be charged at rates specified in [ ] this Agreement.

- 3.2 In lieu of the reciprocal compensation arrangement described above and where permitted by state law or Commission regulation or order, the parties may elect in writing to adopt a bill and keep compensation arrangement or such other mutually agreed upon compensation arrangement.

4. **Issuance of Meet Point Billing Data and Mutual Billing Data**

- 4.1 GTE and AT&T shall issue the data required to implement Section 2 of this Appendix (i.e. Meet Point Billing Data) and Section 3 of this Appendix (i.e. Mutual Compensation) as provided in EMR format via Connect:Direct as provided in Section 2.5 of this Attachment.

5. **Testing Requirements**

GTE shall adhere to the same testing requirements and specifications for transmitting Meet Point Billing data and Mutual Compensation data as applicable to the recording of Call Information as set forth in Section 2.5 of this Attachment.

**ATTACHMENT 7****PROVISION OF CUSTOMER USAGE DATA****TABLE OF CONTENTS**

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**PROVISION OF CUSTOMER USAGE DATA****1. Introduction**

- 1.1 This Attachment sets forth the terms and conditions for GTE's provision of recorded usage data (as defined in this Attachment) to AT&T. Recorded Usage Data shall be provided by GTE to AT&T when AT&T purchases Network Elements, Combinations, or Local Services from GTE.

**2. General Requirements for Recorded Usage Data**

- 2.1 GTE shall provide AT&T with Recorded Usage Data in accordance with this Attachment.
- 2.2 GTE's provision of Recorded Usage Data to AT&T shall be in accordance with AT&T's Direct Measures of Quality (DMOQs) set forth in Appendix I of this Attachment.
- 2.3 GTE shall retain Recorded Usage Data in accordance with applicable law and regulation.

**3. Usage Data Specifications**

- 3.1 GTE will record all usage originating from AT&T Customers using the GTE provided Element or Local Services, which include intraLATA toll and local usage. Recorded Usage Data includes, but is not limited to, the following categories of information:
- Call Attempts
  - Completed Calls
  - Use Of CLASS/LASS/Custom Features
  - Calls To Information Providers Reached Via GTE Facilities And Contracted By GTE
  - Calls To Directory Assistance Where GTE Provides Such Service To An AT&T Customer
  - Calls Completed Via GTE Provided Operator Services Where GTE Provides Such Service To AT&T's Local Service Customer
  - For GTE Provided CENTRANET Service, Station Level Detail
  - Records Shall Include Complete Call Detail And Complete Timing Information
  - Recording Of Completed Calls Which GTE Does Not Record For Its Own Service Offerings (e.g., Flat Rate Free Calling Area Service)

**AT&T PROPRIETARY  
DRAFT FOR DISCUSSION PURPOSES**

- 3.2 GTE shall provide to AT&T Recorded Usage Data for AT&T Customers only in unrated format, except as provided in Section 3.3 following. GTE will not submit other carrier local usage data as part of the AT&T Recorded Usage Data.
- 3.3 Calls to information providers referenced in Section 3.1 preceding shall be provided to AT &T in rated format for billing to the customer.
- 3.3.1 The parties also agree to establish settlement procedures to permit AT&T to recourse to GTE amounts AT&T Customers refuse to pay for these rated information provider charges forwarded by GTE to AT&T for billing.
- 3.4 End user customer usage records and station level detail records shall be in packs in accordance with EMR standards.

#### **4. Recorded Usage Data Format**

- 4.1 GTE will provide Recorded Usage Data in the EMR format and by category, group and record type, as specified in the AT&T Customer Usage Data Transfer Requirements, March 1996 ("Data Requirements"), which is attached hereto and incorporated herein as Appendix II.
- 4.2 GTE shall include the Working Telephone Number (WTN) of the call originator on each EMR call record.
- 4.3 End user customer usage records and station level detail records shall be in packs in accordance with EMR standards.

#### **5. Recorded Usage Data Reporting Requirements**

- 5.1 GTE shall segregate and organize the Recorded Usage Data in accordance with AT&T's instructions.
- 5.2 GTE shall provide segregated Recorded Usage Data to multiple AT&T biller locations as designated by AT&T.
- 5.3 GTE, at no cost to AT&T, shall transmit Data Requirements formatted Recorded Usage Data to AT&T via CONNECT:Direct as designated by AT&T. In the event that usage transfer cannot be accommodated by Connect Direct because of extended (one business day or more) facility outages, or if facilities do not exist, the LSP will contract for a courier service to transport the data tapes. Data transported to AT&T on tape or cartridge via a courier

will have the physical characteristics indicated in SUBAPPENDIX A. AT&T's intent is for variable block format (2, 476 bytes) with a LRLECL of 2472.

- 5.3.1 GTE will provide AT&T with contacts, Remote Identifiers and expected usage volumes for each sending location.

AT&T will provide GTE with contacts responsible for receiving usage transmitted by GTE and recurring usages tapes from a courier service in the event of a facility outage.

- 5.4 AT&T will test and certify the CONNECT:Direct interface to ensure the accurate receipt of Recorded Usage Data. GTE shall make any changes necessary to pass the AT&T CONNECT:Direct certification process.
- 5.5 GTE shall provide Recorded Usage Data to AT&T on a schedule to be determined by the parties once a day (Monday through Friday) unless otherwise negotiated. AT&T and/or GTE Data Center holidays are excluded. GTE shall provide to AT&T the Recorded Usage Data not more than twenty-four (24) hours after termination of the call for which usage data is to be provided, except that Recorded Usage Data recorded on Fridays, Saturdays, Sundays and Data Center holidays shall be provided on the next business day.
- 5.6 GTE will establish a single point of contact to respond to AT&T call usage, data error, and record transmission inquiries.
- 5.7 The Recorded Usage Data EMR format, content, and transmission process will be tested as specified by AT&T
- 5.8 When requested by AT&T for security purposes, GTE shall provide AT&T with Recorded Usage Data within two (2) hours of the call completion. If not available in EMR format, the Recorded Usage Data may be provided in AMA format.

5.9 **USAGE SUMMARY**

Messages will be transmitted, via a direct feed, to AT&T in standard EMR format. The following is a list of EMR records that AT&T can expect to receive from the LSP:

|                |          |
|----------------|----------|
| Header Record  | 20-20-01 |
| Trailer Record | 20-20-02 |

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|                    |  |
|--------------------|--|
| Detail Records*    | 01-01-01, 06, 07, 08, 09, 16, 18, 31, 32, 33, 35, 37, 80, 81, 82, 83, 10-01-01, 06, 07, 08, 09, 16, 18, 31, 32, 35, 37, 80, 81, 82, 83 |
| Credit Records     | 03-01-XX   |
| Rated Credits      | 41-01-XX   |
| Cancel Records     | 51-01-XX   |
| Correction Records | 71-01-XX   |

\*Category 01 is utilized for Rated Messages; Category 10 is utilized for Unrated Messages

In addition, the LSP should provide a 42-50-01 Miscellaneous Charge record to support the Special Features Star Services (see Attachment F for specific details) if these features are part of the LSP's resale product.

For detailed information regarding EMR, refer to the current version of the BellCore Practice BR010-200-010 document.

- 5.10 AT&T and GTE will track pack number to control input based upon invoice sequencing criteria. GTE will be notified of sequence failures identified by AT&T and resend procedures are to be invoked.
- 5.11 AT&T, upon receipt of cancel/connection records, will perform their current matching functionality to identify the original message to be connected/canceled. Processing will be dependent upon individual negotiations.
- 6. **Recording Failures**
  - 6.1 **Loss of Recorded Usage Data** - AT&T Recorded Usage Data determined to have been lost, damaged or destroyed as a result of an error or omission by GTE in its performance of the recording function shall, upon AT&T's request, be recovered by GTE at no charge to AT&T. In the event the data cannot be recovered by GTE, GTE shall estimate the messages and associated revenue, with assistance from AT&T, based upon the method described below. This method will be applied on a consistent basis, subject to modifications agreed to by GTE and AT&T. This estimate will be used to adjust amounts AT&T owes GTE for services GTE provides in conjunction with the provision of Recorded Usage Data.

- 6.1.1 **Partial Loss** - GTE shall review its daily controls to determine if data has been lost. When there has been a partial loss, actual message and minute volumes shall be reported, if possible. Where actual data are not available, a full day shall be estimated for the recording entity, as outlined in Section 6.1.3 following. The amount of the partial loss is then determined by subtracting the data actually recorded for such day from the estimated total for such day.
- 6.1.2 **Complete Loss** - Estimated message and minute volumes for each loss consisting of an entire AMA tape or entire data volume due to its loss prior to or during processing, lost after receipt, degaussed before processing, receipt of a blank or unreadable tape, or lost for other causes, shall be reported.
- 6.1.3 **Estimated Volumes** - From message and minute volume reports for the entity experiencing the loss, GTE shall secure message/minute counts for the four (4) corresponding days of the weeks preceding that in which the loss occurred and compute an average of these volumes. GTE shall apply the appropriate average revenue per message ("arpm") provided by AT&T to the estimated message volume to arrive at the estimated lost revenue.

**Exceptions:**

- 6.1.3.1 If the day of loss is not a holiday but one (1) (or more) of the preceding corresponding days is a holiday, use additional preceding weeks in order to procure volumes for two (2) non-holidays in the previous two (2) weeks that correspond to the day of the week that is the day of the loss.
- 6.1.3.2 If the loss occurs on a weekday that is a holiday (except Christmas), GTE shall use volumes from the two (2) preceding Sundays.
- 6.1.3.3 If the loss occurs on Mother's Day or Christmas, GTE shall use volumes from that day in the preceding year (if available).
- 6.2 AT&T may also request data be provided that has previously been successfully provided by GTE to AT&T. GTE shall reprovide such data, if available, at no additional charge to AT&T.

7. **Charges**

- 7.1 GTE shall bill and AT&T shall pay the charges set forth in Part 4 for Recorded Usage Data. Billing and payment shall be in accordance with the applicable terms and conditions set forth in this Agreement.

8. **Local Account Maintenance**

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- 8.1 When AT&T purchases Local Service from GTE, and, as appropriate, when AT&T purchases certain Unbundled Network Elements, GTE shall provide AT&T with Local Account Maintenance as described in Appendix III of this Attachment. These procedures are in addition to Service Order procedures set forth in Part I and Attachment 4 to the Agreement.

**9. Clearinghouse Procedures**

- 9.1 The parties acknowledge that calls will be placed using the service of one party that will be billable to customers of another party. In order to ensure that these calls are properly accounted for and billed to the appropriate customer, the parties agree to work together and, when required, with other carriers, to establish clearinghouse procedures to accomplish these objectives. It is the intention of the parties that these negotiations will be completed within six (6) months of the execution of this Agreement. These procedures will establish the following:
- 9.1.1 AT&T shall have access to the Bellcore CMDS process for transmitting, receiving, and settling calling card, in-collect, and out-collect inter-region messages.
- 9.1.2 AT&T shall have access to the Bellcore company regional process for receiving and settling calling card, in-collect, and out-collect intra-region messages.
- 9.1.3 In the event a clearinghouse procedure is not in place upon the Effective Date of this Agreement, GTE will implement an interim arrangement with AT&T.

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APPENDIX I  
TO  
ATTACHMENT 7DMOQ'S FOR  
PROVISION OF CUSTOMER USAGE DATA1. **Switched Services**

GTE will provide all Recorded Usage Information detail in an accurate timely manner. The format and content is described in the current Bellcore EXCHANGE MESSAGE RECORD (EMR) document.

2. **File Transfer**

GTE will initiate and transmit all files error free and without loss of signal.

Metric:

$$\frac{\text{Number of FILES Received}}{\text{Number of FILES Sent}} \times 100$$

Notes: All measurement will be a on a rolling period.

Measurement:

| <u>Rating</u>              | <u>Criteria</u>                                |
|----------------------------|--|
| Exceeds Expectations       | 6+ months of file transfers without a failure. |
| Meets Expectations         | 6 months of file transfers without a failure.  |
| Does Not Meet Expectations | < 6 months of file transfers without error.    |

\*\* During the first six (6) months, no rating will be applied.

3. **Timeliness** GTE will mechanically transmit, via CONNECT:Direct, all usage records to AT&T's Message Processing Center once each day (Monday through Friday), excluding AT&T and/or RLEC Data Center holidays, unless otherwise negotiated.

Measurement:

Rating

Criteria

Exceeds Expectations

≥ 99.95% records delivered on the the call was recorded

Meets Expectations

99.94% of all messages delivered on the day the call was recorded

Approaches Expectations

99.94% of all messages delivered within 12 hours of the day the call was recorded

Does Not Meet Expectations

<99.94% of all messages delivered within 12 hours of the day the call was recorded

4. **Completeness**

GTE will provide all required Recorded Usage Data and ensure that it is processed and transmitted within thirty (30) days of the message create date.

Metric:

Total number of Recorded Usage Data records delivered during current month  
minus

Number of Usage Call Records held in error file at the end of the current month

----- X 100  
Total number of Recorded Usage Data Records delivered

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**Measurement:****Rating****Criteria**

Exceeds Expectations

100% of recorded records delivered

Meets Expectations

 $\geq 99.99\%$  of all recorded records delivered

Approaches Expectations

99.95% to 99.98% of recorded records delivered

Does Not Meet Expectations

 $\leq 99.94\%$  of all recorded records delivered

Note: Failure of a RLEC to transmit to AT&T 100% of all recorded messages shall result in a liability by GTE to AT&T for the lost revenue.

5. **Accuracy**

GTE will provide Recorded Usage Data in the format and with the content as defined in the current Bellcore EMR document.

**Metric:**

Total Number of Recorded Usage Data Transmitted Correctly

-----X 100

Total Number of Recorded Usage Data Transmitted

**Measurement:****Rating****Criteria**

Exceeds Expectations

100% of recorded records delivered

Meets Expectations

 $\geq 99.99\%$  of all recorded records delivered

Approaches Expectations

99.95% to 99.98% of recorded records delivered

Does Not Meet Expectations

 $\leq 99.94\%$  of all recorded records delivered6. **Data Packs**

GTE will transmit to AT&T all packs error free in the format agreed.

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**Measurement:****Rating Criteria****Exceeds Expectations**  
**a rejected pack****6+ months of Transmitted Packs without****Meets Expectations**  
**a rejected pack****6 months of Transmitted Packs without****Does Not Meet Expectations****1 Rejected Pack in a window of less**  
**than 3 months****\*\* During the first six (6) months, No Rating will be applied.****Notes: All measurements will be on a Rolling Period.****7. Recorded Usage Data Accuracy**

GTE will ensure that the Recorded Usage Data is transmitted to AT&T error free, the level of detail includes, but is not limited to: detail required to Rating the call, Duration, and Correct Originating/Terminating information. The error is reported to GTE as a Modification Request (MR). Performance is to be measured at 2 levels defined below. AT&T will identify the priority of the MR at the time of hand off as Severity 1 or Severity 2. The following are AT&T expectations of GTE for each:

**Measurement:****Severity 1:****Rating****Exceeds Expectations****Criteria****100% of the MR fixed in  $\leq 24$  hours****Meets Expectations** **$\geq 90\%$  of the MR fixed in  $\leq 24$  hours and  
**100% of the MR fixed in  $\leq 5$  Days******Does Not Meet Expectations** **$< 90\%$  of the MR fixed in  $\leq 24$  hours  
**or  
 $< 100\%$  of the MR fixed in  $> 5$  Days******Severity 2:****Rating****Exceeds Expectations****Criteria****100% of the MR fixed in  $\leq 3$  working**

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## Days

Meets Expectations

≥90% of the MR fixed in 3 Days and  
100% of the MR fixed in ≤10 Days

Does Not Meet Expectations

< 90% of the MR fixed in ≤3 Days  
or  
<100 of the MR fixed in > 10 Days

8. **Usage Inquiry Responsiveness**

GTE will respond to all usage inquiries within twenty-four (24) hours of AT&T's request for information. It is AT&T's expectation to receive continuous status reports until the request for information is satisfied.

Measurements:

**Rating**

Meets Expectations

**Criteria**

100% of the Inquires responded to  
within 24 hours

Does Not Meet Expectations

≤99.99% of the Inquiries responded to  
within 24 hours

9. **Dedicated Services**

Since dedicated services have no unique billing requirements for local service at this time, this is reserved for future use.

**APPENDIX II  
TO  
ATTACHMENT 7**

**CUSTOMER USAGE DATA  
TRANSFER REQUIREMENTS**

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**SECTION I: SCOPE****1. General**

This Appendix addresses the transmission by GTE of AT&T Customer usage to AT&T.

**1.1 Usage Summary**

Messages will be transmitted, via a direct feed, to AT&T in standard EMR format. The following is a list of EMR records that AT&T can expect to receive from GTE:

|                    |  |
|--------------------|--|
| Header Record      | 20-20-01   |
| Trailer Record     | 20-20-02   |
| Detail Records*    | 01-01-01, 06, 07, 08, 09, 16, 18, 31, 32, 33, 35, 37, 80, 81, 82, 83 |
|                    | 10-01-01, 06, 07, 08, 09, 16, 18, 31, 32, 35, 37, 80, 81, 82, 83     |
| Credit Records     | 03-01-XX   |
| Rated Credits      | 41-01-XX   |
| Cancel Records     | 51-01-XX   |
| Correction Records | 71-01-XX   |

\*Category 01 is utilized for Rated Messages; Category 10 is utilized for Unrated Messages

In addition, GTE shall provide a 42-50-01 Miscellaneous Charge record to support the Special Features Star Services (see Subappendix F for specific details) if these features are part of GTE's offering.

For detailed information regarding EMR, refer to the current version of the BellCore Practice BR010-200-010 Appendix.

**2. Appendix Content**

This Appendix describes baseline requirements for the transfer of GTE recorded, unrated usage to AT&T. Testing requirements and the reports needed to ensure data integrity are also included. Additional requirements and implementation details may be identified for conditions unique to GTE. Modifications and/or exceptions to this Appendix must be negotiated and mutually agreed upon by GTE and AT&T.

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**SECTION II: RECORDED USAGE TO BE TRANSMITTED TO AT&T****1. General**

This section addresses the types of usage to be transmitted by GTE to AT&T.

**1.1 Usage To Be Transferred To AT&T****1.1.1 AT&T Usage To Be Transferred**

The following messages recorded by GTE are to be transmitted to AT&T. GTE recorded usage includes all usage by AT&T Customers.

**NOTE:** Rated incollect messages should be transmitted via the direct feed and can be intermingled with the unrated messages. No special packing is needed.

At the discretion of AT&T, any of the above mentioned messages that cannot be rated and/or billed by AT&T may be returned to GTE via a direct returns feed. Returned messages will be sent to GTE in EMR format. Standard EMR return codes will be utilized.

File transfer specifications are included within Section 3.

**1.2 AT&T Usage**

The Recorded Usage Data in a local resale environment includes all intraLATA toll and local usage. GTE will provide AT&T with unrated EMR records associated with all intraLATA toll and local usage which they record on AT&T's behalf. Any Category, Group and/or Record types approved in the future for GTE will be included if they fall within the definition of local service resale. AT&T shall be given notification of implementation of a new type within the negotiated timeframes.

**NOTE:** GTE messages will be packed using the packing criteria outlined in Section 3.4.8. It is important to note that all GTE messages will be packed together (intermingled) based on the appropriate AT&T Send To/Bill To RAO combination. Specific categories, groups, and record types will not be packed separately.

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**SECTION III: GTE TO AT&T USAGE FEED****1. General**

This section contains the information required for GTE to transmit the usage defined in Section II to AT&T. This section specifically addresses the dataset requirements and processing.

**1.1 Detailed EMR Record Edits**

AT&T will perform detailed record edits on the unrated and rated messages upon receipt from GTE. Messages that fail these edits may be returned to GTE.

**1.2 Duplicate Record Checks**

AT&T will perform record checks on the unrated and rated messages to validate that duplicate messages are not sent by GTE to AT&T.

**1.3 GTE to AT&T Usage Feed****1.3.1 Usage Data Transport Requirements**

GTE will provide the transport facility between GTE location and the AT&T location. It is AT&T's intent that usage data be transmitted via CONNECT:Direct whenever possible. In the event usage transfer cannot be accommodated by CONNECT:Direct because of extended (one (1) business day or longer) facility outages, or if facilities do not exist, GTE will contract for a courier service to transport the data via tape.

GTE will provide AT&T with contacts, Remote Identifiers (IDs), and expected usage data volumes for each sending location.

AT&T will provide contacts responsible for:  
Receiving usage transmitted by GTE.  
Receiving usage tapes from a courier service in the event of a facility outage.

**1.3.2 Physical Characteristics**

Data transported to AT&T on tape or cartridge via a courier will have the physical characteristics indicated in Subappendix A. AT&T's intent is for variable block format (2,476 bytes) with a LRECL of 2472.

**1.3.3 Data Delivery Schedules**

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Data will be delivered to AT&T by GTE daily (Monday through Friday) unless otherwise negotiated. AT&T and/or GTE Data Center holidays are excluded. GTE and AT&T will exchange schedules of designated Data Center holidays.

#### **1.3.4 Resending Data**

AT&T will notify GTE of resend requirements if a pack or entire dataset must be replaced due to pack rejection, damage in transit, dataset name failure, etc.

#### **1.3.5 Pack Rejection**

Critical edit failure on the Pack Header or Pack Trailer records will result in pack rejection (e.g., detail record count not equal to grand total included in the pack trailer). Notification of pack rejection will be made by AT&T within one (1) business day of processing. Rejected packs will be corrected by GTE and retransmitted to AT&T by GTE.

#### **1.3.6 Held Packs And Messages**

AT&T and GTE will track pack number to control input based upon invoice sequencing criteria. GTE will be notified of sequence failures identified by AT&T and resend procedures are to be invoked.

#### **1.3.7 Data Content Requirements**

EMR is the format to be used for usage data provided to AT&T.

#### **1.3.8 RAO Packing Requirements**

A pack shall contain a minimum of one message record or a maximum of 9,999 message records plus a pack header record and a pack trailer record. A file transmission contains a maximum of 99 packs. A dataset shall contain a minimum of one pack. GTE will provide AT&T one dataset per sending location, with the agreed upon RAO/OCN populated in the Header and Trailer records.

Within the Header and Trailer records, the FROM RAO identifies the location that will be sending usage to AT&T. GTE will populate the FROM RAO field with the unique numeric value identifying the location that is sending the data to AT&T. GTE will populate the Send To/Bill To RAO fields with the appropriate AT&T RAO values. Also, Pack Header and Trailer will have the OCN appropriately populated.

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The FROM RAO, OCN, and Remote Identifiers will be used by AT&T to control invoice sequencing and each will have its own invoice controls. The FROM RAO will also be used to determine where the message returns file, containing any misdirected and unguidable usage, will be sent.

The file's Record Format (RECFM) will be Variable Block (VB) Size 2,476 and the Logical Record Length (LRECL) will be 2,472 bytes. Compaction requirements can be found in Subappendix B hereto.

AT&T has no special sort requirements for the packs sent by GTE.

### 1.3.9 Dataset Naming Convention

GTE will transmit the usage to AT&T using the following dataset naming conventions. The dataset name (DSN) will be partitioned into five nodes, separated by periods as follows:

NODE 1.BB03PXNN\*  
NODE 2.IBMUP  
NODE 3 (To be determined during negotiations)  
NODE 4.USAGE

NODE 5.GNNNNV00\* (Generational Dataset to be incremented by sender).  
\*The italicized "N" represents numeric fields determined during negotiations.

### 1.3.10 Control Reports

AT&T accepts input data provided by GTE in EMR format in accordance with the requirements and specifications detailed in this section of the attachment. In order to ensure the overall integrity of the usage being transmitted from the rlec to AT&T, data transfer control reports will be required. These reports shall be provided by AT&T to GTE on a daily or otherwise negotiated basis and reflect the results of the processing for each pack transmitted by GTE.

### 1.3.11 Message Validation Reports

AT&T will provide the following three (3) daily (or otherwise negotiated) Message Validation reports to the designated GTE System Control Coordinator. These reports will be provided for all data received within GTE Local Resale Feed and will be transmitted Monday through Friday whether or not there have been any files transmitted.

#### 1.3.11.1 Message Validation Pack Reject Report (A7287)

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This report provides information on packs rejected by AT&T. It lists the header and trailer record of each rejected pack and indicates the error codes and the associated error message which explains why the pack was rejected.

An example of the report and a list of Valid Error Codes and associated error messages are provided in Subappendix C hereto.

#### **1.3.11.2 Message Validation Pack Accepted Report (A7288)**

This report provides vital statistics and control totals by Record ID, Type of Service, Message Counts and Record Counts, for all valid, rejected and dropped messages. The information is provided in the following report formats and control levels:

1. RLEC Total Messages
2. RLEC Total Records
3. RAO Total Messages
4. RAO Total Records
5. Pack Total (Record Counts and Message Counts)

The first four report formats include percentages that indicate the relationship of the daily input volume by Record ID and Type of Record to the total input volume provided by an RAO and GTE.

An example of the report is provided in Subappendix D hereto.

#### **1.3.11.3 Message Validation Detail Error Report (A7289)**

An EMR detailed error report is generated for each pack/ invoice that is received and processed by AT&T. The report lists, in vertical format, the complete 175 byte EMR record that has failed to pass the initial edit criteria. It prints this detailed information only for the first five EMR records that share a common error condition. The error condition is flagged on the report by one of two possible error codes preceding the field value. The error codes are:

- (C) DENOTES CRITICAL ERRORS
- (I) DENOTES INFORMATION ERRORS

The last two pages of the report for a given pack/invoice provide the following control totals:

Total Errors for each Field

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Total Records Received

Total Records Dropped

Total Records Rejected to MIU

Pack Reject Rate

Total Default Count (represents the number of Files on all of the input records that had to be programmatically altered to meet the EMR standards and specifications.)

If the entire pack/invoice has been rejected because of a Critical Error Rate greater than 0.5%, the last page of the report will display such a statement enclosed in asterisks.

An example of the report is provided in Subappendix E hereto.

#### **1.3.11.4 Control Reports - Distribution**

Since GTE is not receiving control reports, dataset names will be established during detailed negotiations.

**SECTION IV: AT&T PROCESSING REQUIREMENTS****1. General**

This section contains requirements for AT&T processing of Recorded Usage Data that has been transmitted to AT&T for billing.

**1.1 AT&T Rating Process****1.1.1 Message Rating**

AT&T will rate any individual messages (as defined in Section II), that have not already been rated by GTE (information provider messages will be rated by GTE), prior to transmitting the usage to a billing environment within AT&T.

**1.1.2 Application Of Taxes/Fees/Surcharges**

AT&T will apply taxes, fees and surcharges as appropriate for the individual messages and/or customer accounts. The application of all taxes, fees and surcharges will be applied on all intraLATA local and toll usage received from GTE.

**1.1.3 Duplicate Messages**

AT&T has existing duplicate checks as part of their message processing or billing functions. AT&T will perform these checks on the rated/unrated messages sent pursuant to GTE duplicate message disposition procedures and reports will be identified by AT&T during negotiations.

**1.1.4 Record Edits****1.1.4.1 AT&T Record Edits**

AT&T will perform detailed record edits on the rated and unrated messages prior to transmitting them to the billing environment. Rated and unrated records that do not pass AT&T edits will be returned to GTE.

**1.1.4.2 GTE Record Edits**

If GTE has existing detailed record edits for rated and unrated messages, GTE is to perform these edits.

Rated and unrated records that do not pass AT&T edits will be returned to

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GTE. GTE will attempt to perform error correction on all records requiring such action as agreed upon through the detailed negotiations process.

**1.1.5 AT&T To GTE Message Returns**

At the discretion of AT&T, customer usage data sent to AT&T by GTE that cannot be guided to an AT&T billed account or that cannot be processed will be returned to GTE with the appropriate industry standard return codes.

**1.1.6 Cancel/Correction Records**

AT&T, upon receipt of cancel/correction records, will perform their current matching functionality to identify the original message to be canceled/corrected. (Processing will be dependent upon individual negotiations.)

## **SECTION V: TEST PLANS AND ACTIVITIES**

### **1. General**

This section defines GTE and AT&T activities which are required prior to implementation. The tests and activities described are necessary to ensure a smooth, accurate and well-programmed conversion. Specific test dates will be identified through the negotiations process.

#### **1.1 Interface Testing**

The purpose of this test is to ensure that the usage described in Section II preceding can be sent by GTE to AT&T and can be accepted and processed by AT&T. GTE will provide a test file to AT&T's designated Regional Processing Center (RPC) in the format that will be used for live day-to-day processing. The file will contain one (1) full day's production usage. The format of the file will conform to the requirements shown in Section III. AT&T will review the file and verify that it conforms to its data center requirements. AT&T will notify GTE in writing whether the format is acceptable. AT&T will also provide GTE with the agreed-upon control reports as part of this test.

#### **1.2 Operational Test**

The purpose of this test is to ensure that volumes of usage in consecutive sequence can be extracted, distributed, and processed by GTE and AT&T.

GTE is required to provide AT&T with GTE recorded, unrated usage (as defined in Section 2) for a minimum of five (5) consecutive days. AT&T will provide GTE with the message validation reports associated with test usage.

AT&T will rate and process the unrated intraLATA toll and local usage. AT&T will process this data to test bills. AT&T may request that the test usage contain specific usage volumes and characteristics to ensure a complete test. Specific usage volumes and characteristics will be discussed during detailed negotiations.

#### **1.3 Test File**

Test data should be transported via CONNECT:Direct whenever possible. In the event that courier service must be used to transport test media, the physical tape characteristics to be used are described in Subappendix A hereto.

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**SECTION VI: POST DEPLOYMENT ACTIVITIES****1. General**

Requirements for ongoing maintenance of the usage feeds between AT&T and GTE are described in this section. Included are minimal requirements for day to day control of the regularly scheduled transfer of GTE unrated and rated usage data and procedures for introducing and verifying AT&T/GTE System Changes.

**1.1 Control Maintenance And Review****1.1.1 Periodic Review**

Control procedures for all usage transferred between GTE and AT&T will require periodic review. This review may be included as part of an annual audit of GTE by AT&T or as part of the normal production interface management function. Breakdowns which impact the flow of usage between GTE and AT&T must be identified and jointly resolved as they occur. The resolution may include changes to control procedures, as similar problems would be avoided in the future. Any changes to control procedures would need to be mutually agreed upon by AT&T and GTE.

**1.1.2 Retention of Records**

GTE shall maintain a machine readable back-up copy of the message detail provided to AT&T for a minimum of forty-five (45) calendar days. AT&T will maintain the message detail received from GTE for a minimum period of forty-five (45) calendar days. Designated AT&T personnel will provide these records to GTE or its authorized agents upon written request. GTE will also provide any data back to AT&T upon their written request.

**1.2 RLEC Software Changes**

When GTE plans to introduce any software changes which impact the format or content structure of the usage data feed to AT&T, designated RLEC personnel will notify AT&T no less than one hundred twenty (120) calendar days before such changes are implemented.

GTE will communicate the projected changes to the appropriate groups in AT&T so that potential impacts on AT&T processing can be determined.

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AT&T personnel will review the impact of the change on the entire control structure as described in Section 1.5, Post Conversion Test Plan, herein. AT&T will negotiate any perceived problems with GTE and will arrange to have the data tested utilizing the modified software.

If it is necessary for GTE to request changes in the schedule, content or format of usage data transmitted to AT&T, GTE will notify AT&T.

### **1.3 AT&T Requested Changes**

If it is necessary for AT&T to request changes in the schedule, content, or format of the usage data transmitted from GTE, AT&T will notify GTE.

When the negotiated changes are to be implemented, AT&T and/or GTE will arrange for testing of the modified data as described in Section 1.5, Post Conversion Test Plan.

### **1.4 AT&T Software Changes**

When AT&T plans to introduce any software changes which may impact the format or content structure of the usage data transmitted from GTE, AT&T will notify the designated GTE personnel, no less than one hundred twenty (120) calendar days before such changes are implemented.

The AT&T contact will communicate the projected changes to the appropriate groups in GTE so that potential impacts on GTE processing can be determined.

AT&T will negotiate any perceived problems with GTE and will arrange to have the data tested utilizing the modified software.

Altering the one hundred twenty (120) day window for introducing software changes can be negotiated by both companies, dependent upon the scope and impact of the change.

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## **1.5 Post-Conversion Test Plan**

The test plan described below is designed to encompass all types of changes to the usage data transferred by GTE to AT&T and the methods of transmission for that data.

### **1.5.1 GTE System Change Description**

For a GTE system change, GTE shall provide AT&T with an overall description of the change, stating the objective and a brief explanation of the reasons for the change.

During the initial negotiations regarding the change, GTE shall provide a list of the specific records and/or systems impacted by the change to designated AT&T personnel.

Finally, GTE shall also provide AT&T a detailed description of the changes to be implemented. It shall include sufficient detail for designated AT&T personnel to analyze and estimate the effects of the changes and to design tests to verify the accuracy of the implementation.

### **1.5.2 Change Negotiations**

AT&T shall be notified in writing of all proposed change negotiations initiated by GTE. In turn, AT&T will notify GTE of proposed change negotiations initiated by AT&T.

After formal notification of planned changes, whether originated by GTE or AT&T, designated AT&T personnel will schedule negotiation meetings as required with designated GTE personnel. The first meeting should produce the overall change description (if not previously furnished) and the list of records and/or systems affected.

In subsequent meetings, GTE shall provide the detailed description of changes to be implemented. After reviewing the described changes, designated AT&T personnel will negotiate a detailed test procedure with GTE.

### **1.5.3 Control Change Analysis**

Based on the detailed description of the changes provided by GTE, and the review of the projected changes by AT&T, designated AT&T personnel will:

#### **1.5.3.1 Determine the impact of the changes on the overall structure.**

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- 1.5.3.2 Determine whether any single change has a potential control impact (i.e., high error rate on individual records that might result in pack rejection).
- 1.5.3.3 Determine whether any controls might be adversely affected.
- 1.5.3.4 Arrange for appropriate control structure changes to meet any of the above conditions.

#### 1.5.4 Verification Of Changes

Based on the detailed description of changes furnished by GTE, designated AT&T personnel will:

- 1.5.4.1 Determine the type of change(s) to be implemented.
- 1.5.4.2 Develop a comprehensive test plan.
- 1.5.4.3 Negotiate scheduling and transfer of modified data with GTE.
- 1.5.4.4 Negotiate testing of modified data with the appropriate AT&T rpc.
- 1.5.4.5 Negotiate processing of verified data through the AT&T billing system with the rpc.
- 1.5.4.6 Arrange for review and verification of testing with appropriate AT&T groups.
- 1.5.4.7 Arrange for review of modified controls, if applicable.

#### 1.5.5 Introduction of Changes

When all the testing requirements have been met and the results reviewed and accepted, designated AT&T personnel will:

- 1.5.5.1 Negotiate an implementation schedule.
- 1.5.5.2 Verify the existence of a contingency plan with the appropriate AT&T personnel.
- 1.5.5.3 Arrange for the follow-up review of changes with appropriate AT&T personnel.
- 1.5.5.4 Arrange for appropriate changes in control program, if applicable.
- 1.5.5.5 Arrange for long-term functional review of impact of changes on the AT&T billing system, i.e., accuracy, timeliness, and completeness.

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## **SECTION VII: APPENDICES**

### **SUMMARY OF APPENDICES**

#### **Subappendix A**

Physical Characteristics Of Data Tapes/  
Cartridges

#### **Subappendix B**

Compaction Requirements

#### **Subappendix C**

Message Validation Pack Reject Report (A7287)

#### **Subappendix D**

Message Validation Pack Accepted Report (A7288)

#### **Subappendix E**

Message Validation EMR Detail Error Report (A7289)

#### **Subappendix F**

Special Features Star Services

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**SUBAPPENDIX A****PHYSICAL CHARACTERISTICS OF DATA TAPES/CARTRIDGES**

Data transported to AT&T by GTE, or to GTE by AT&T, on tape or cartridge via a courier will have the following physical characteristics:

|  |   |
|--|---|
| Tape:  | 9-track, 6250 (or 1600) BPI (Bytes per inch)  |
| Cartridge:   | 38,000 BPI (Bytes per inch)   |
| LRECL:   | 2,472 Bytes   |
| Parity:  | Odd   |
| Character Set:   | Extended Binary Coded Decimal Interchange Code (EBCDIC)   |
| External labels:   | Exchange Carrier Name, Dataset Name (DSN) and volume serial number  |
| Internal labels:   | IBM Industry OS labels will be used. They consist of a single volume label and two sets of header and trailer labels. |
| One file per sending location with variable length records | 104 bytes EMR compacted format plus modules as applicable.  |

**SUBAPPENDIX B**

**[DELETED]**

# SUBAPPENDIX C

## MESSAGE VALIDATION PACK REJECT REPORT (A7287)

MM/DD/YY HH:MM:SS

RETEN CODE: 01R-00300

-----  
COMPANY XX REMOTE ID 9999X FROM BSID 999

| HEADER | RECORD ID | DATE CREATED | INVOICE NUMBER | BELL CO ID | BELL RAO | IX CARRIER | IND CO ID |
|--------|-----------|--------------|----------------|------------|----------|------------|-----------|
|        | 999999    | 99-99-99     | 99             | 99         | 999      | 999        | 9999      |

| TOTAL REC. |           | DATE CREATED | INVOICE NUMBER | BELL CO ID | BELL RAO | IX CARRIER | IND CO ID |
|------------|-----------|--------------|----------------|------------|----------|------------|-----------|
| TRAILER    | RECORD ID |              |                |            |          |            |           |
| COUNT      | 999999    | 99-99-99     | 99             | 99         | 999      | 999        | 9999      |
|            | 99,999    |              |                |            |          |            |           |

ERRORS ERROR CODE ERROR MESSAGE

EC99.9  
XX  
XX

**SUBAPPENDIX C (CONT'D)**  
**MESSAGE VALIDATION PACK REJECT REPORT (A7287)**

| <b>ERROR CODE</b> | <b>ERROR MESSAGES</b>   |
|-------------------|---|
| EC01.2            | First record after trailer is not a Pack Header.  |
| EC03.2            | From RAO is not numeric.  |
| EC04.3            | Invoice number on header invalid.   |
| EC04.5            | Company ID not numeric.   |
| EC04.6            | Independent company ID is not numeric.  |
| EC04.7            | Header Record ID is invalid.  |
| EC04.8            | Trailer Record ID is invalid.   |
| EC04.9            | Trailer Record count invalid.   |
| EC05.0            | Duplicate pack.   |
| EC05.1            | Old Pack.   |
| EC05.2            | RAO not found on table.   |
| EC07.3            | Error rate greater than invoice file threshold for RAO invoice number.                    |
| EC12.0            | Remote ID in Dataset is not valid.  |
| EC20.0            | No detail records in pack.  |
| EC13.0            | Invalid status on Pack Header.  |
| EC27.0            | Pack exceeds limit of 9,999 detail records.   |
| EC40.9            | Pack Header record is missing.  |
| EC41.0            | Trailer record is missing.  |
| EC42.0            | Trailer message volume is not equal to accumulated message volume.                        |
| EC44.0            | Header/Trailer date is invalid.   |
| EC45.0            | From RAO on Trailer Record is not equal to the from RAO on Header Record.                 |
| EC48.0            | Invoice number on Trailer Record is not equal to the invoice number on the Header Record. |

## SUBAPPENDIX D - MESSAGE VALIDATION PACK ACCEPTED REPORT (A7288)

MM/DD/YY-----HH:MM:SS  
RETEN CODE: 01R-00300COMPANY XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX FROM RAO INVOICE NO. DATE CREATED  
TOTAL RECORDS RECEIVED-----999-----99-----MM/DD/YY-----  
--ZZ.ZZ9COUNTS-----MESSAGE COUNTS-----RECORD  
RECORD ID TYPE OF RECORDVALID-----REJECTED---DROPPED---TOTAL-----VALID---REJECTED---  
-DROPPED---TOTAL

|        |        |        |        |        |                    |        |        |        |
|--------|--------|--------|--------|--------|--------------------|--------|--------|--------|
| 010102 |        |        |        |        | OUTWATS (NON-SMDR) | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |                    |        |        |        |
| 010103 |        |        |        |        | OUTWATS (SMDR)     | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |                    |        |        |        |
| 010104 |        |        |        |        | 800 SERVICE        | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |                    |        |        |        |
|        |        |        |        |        | TOTAL WATS/800     |        |        |        |

|        |        |        |        |        |                            |        |        |        |
|--------|--------|--------|--------|--------|----------------------------|--------|--------|--------|
| 010101 |        |        |        |        | MTS                        | ZZ.ZZ9 | ZZ.ZZ9 |        |
| ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9                     |        |        |        |
| 010106 |        |        |        |        | NON-DIAL CONFER BRIDGE     | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |                            |        |        |        |
| 010107 |        |        |        |        | NON-DIAL CONFER LEG RECORD | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |                            |        |        |        |
| 010108 |        |        |        |        | DIAL CONFERENCE BRIDGE     | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |                            |        |        |        |

|                          |         |         |         |         |                                 |        |        |        |
|--------------------------|---------|---------|---------|---------|---------------------------------|--------|--------|--------|
| 010111                   |         |         |         |         | ALLIANCE (AGTC)                 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010116                   |         |         |         |         | DIAL-IT SERVICE                 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010132                   |         |         |         |         | DIRECTORY ASSISTANCE            | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010180                   |         |         |         |         | MARINE/AIRCRAFT                 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010181                   |         |         |         |         | RADIO LINK                      | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010182                   |         |         |         |         | MARINE NON-DIAL CONFER BRIDGE   | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010183                   |         |         |         |         | MARINE NON-DIAL CONFER LEG REC. | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 0101XX                   |         |         |         |         | OTHER MTS RECORDS               | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| TOTAL NORTH AMERICAN MTS |         |         |         |         |                                 |        |        |        |
|                          |         |         |         |         |                                 |        |        |        |
| 010201                   |         |         |         |         | IOTC/IDDD MTS                   | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 0102XX                   |         |         |         |         | IOTC/IDDD OTHERS                | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010301                   |         |         |         |         | IOTC BFC MTS                    | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 0103XX                   |         |         |         |         | IOTC BFC OTHERS                 | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010401                   |         |         |         |         | IOC MTS                         |        | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZ9  | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9                         |        |        |        |
| 0104XX                   |         |         |         |         | IOC OTHERS                      | ZZ.ZZ9 | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                                 |        |        |        |
| 010501                   |         |         |         |         | IOC MTS                         |        | ZZ.ZZ9 | ZZ.ZZ9 |
| ZZ.ZZ9                   | ZZ.ZZ9  | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9                         |        |        |        |

|                               |         |         |         |         |                              |         |         |         |
|-------------------------------|---------|---------|---------|---------|------------------------------|---------|---------|---------|
| 0105XX                        |         |         |         |         | IOC OTHERS                   | ZZ.ZZ9  | ZZ.ZZ9  | ZZ.ZZ9  |
| ZZ.ZZ9                        | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                              |         |         |         |
|                               |         |         |         |         | TOTAL OVERSEAS MTS           |         |         |         |
| 015002                        |         |         |         |         | OUTWATS LINE SUMMARY         | ZZ.ZZ9  | ZZ.ZZ9  | ZZ.ZZ9  |
| ZZ.ZZ9                        | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                              |         |         |         |
| 015004                        |         |         |         |         | 800 LINE SUMMARY             | ZZ.ZZ9  | ZZ.ZZ9  | ZZ.ZZ9  |
| ZZ.ZZ9                        | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                              |         |         |         |
| 015032                        |         |         |         |         | DIR. ASSISTANCE LINE SUMMARY | ZZ.ZZ9  | ZZ.ZZ9  | ZZ.ZZ9  |
| ZZ.ZZ9                        | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                              |         |         |         |
|                               |         |         |         |         | TOTAL OVERSEAS MTS           |         |         |         |
| 03XXXX                        |         |         |         |         | CREDIT REQUESTS              | ZZ.ZZ9  | ZZ.ZZ9  | ZZ.ZZ9  |
| ZZ.ZZ9                        | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                              |         |         |         |
| 51/52                         |         |         |         |         | CANCEL REQUESTS              | ZZ.ZZ9  | ZZ.ZZ9  | ZZ.ZZ9  |
| ZZ.ZZ9                        | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                              |         |         |         |
| 71/72                         |         |         |         |         | CORRECTION REQUESTS          | ZZ.ZZ9  | ZZ.ZZ9  | ZZ.ZZ9  |
| ZZ.ZZ9                        | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |                              |         |         |         |
| INVALID RECORD IDENTIFICATION |         |         |         | ZZ.ZZ9  |                              |         | ZZ.ZZZ9 | ZZ.ZZZ9 |
| ZZ.ZZZ9                       |         |         |         |         |                              |         |         |         |
| PACK TOTALS                   |         |         | ZZ.ZZ9  | ZZ.ZZZ9 | ZZ.ZZ9                       | ZZ.ZZZ9 | ZZ.ZZZ9 | ZZ.ZZZ9 |

## SUBAPPENDIX E

PAPER COPY OF A REPORT TO BE INCLUDED WITH DISTRIBUTION

## SUBAPPENDIX F SPECIAL FEATURES STAR SERVICES

The following are STAR Services supported by these Local Resale requirements to date. When identified, additional services can be negotiated to be included in this Resale offer.

- 1) Busy Redial/..... This feature allows a customer to redial a number when a Busy signal is encountered.  
Last Number Redial
- 2) Call Return/Missed Call Dialing..... This feature allows a customer to automatically return the most recent incoming call, even if it is not answered.
- 3) Call Trace ..... This feature allows the tracing of nuisance calls.
- 4) 3-Way Calling..... This feature allows for three (3) parties to communicate on one line.
- 5) Automatic Redial..... This feature allows a customer to automatically redial the last number dialed.

To provide for the transfer and billing of these features the following requirements apply:

For all "per use" STAR Features the 'Miscellaneous Charge Line Summary Non-Detail Charge' 425001 record should be used and be populated as follows:

| CONNECT TIME             | POSITIONS 55 - 60   | MUST BE POPULATED  |
|--------------------------|---------------------|--|
| MISCELLANEOUS TEXT CODE  | POSITIONS 168 - 172 | 1) BUSY REDIAL/LAST NUMBER REDIAL<br>POPULATE WITH '00001' |
| MISCELLANEOUS *TEXT CODE | POSITIONS 168 - 172 | 2) CALL RETURN/LAST NUMBER REDIAL<br>POPULATE WITH '00002' |
| MISCELLANEOUS TEXT CODE  | POSITIONS 168 - 172 | 3) CALL TRACE<br>POPULATE WITH '00003'                     |
| MISCELLANEOUS TEXT CODE  | POSITIONS 168-172   | 4) 3-WAY CALLING<br>POPULATE WITH '00004'                  |
| MISCELLANEOUS TEXT CODE  | POSITIONS 168-172   | 5) AUTOMATIC RETIAL<br>POPULATE WITH '00005'               |

**NOTE:** For fields not specifically defined, the standard EMR format for a 425001 record should be used.

**APPENDIX III**  
**TO**  
**ATTACHMENT 7**

**LOCAL**  
**ACCOUNT MAINTENANCE**

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## LOCAL ACCOUNT MAINTENANCE REQUIREMENTS

### 1. GENERAL

In a Resale environment the goal is to enable AT&T Local to create an account maintenance structure congruent to GTE. In the current LEC environment, the LEC has access to all of the customer account data, network switch activity and current status, and new and existing customer account data. In order to obtain the data necessary to satisfy AT&T Local Account Maintenance requirements, GTE must support three key Local Account Maintenance requirements.

#### 1.1 REQUIREMENT #1 - LSP Change Notification FEED

**Situation:** A Customer initiates a change from AT&T Local to another LSP by contacting the New LSP. (LSP Change Notification Feed)

**Create an end-of-day LSP Change Notification Feed:**

**Purpose:** To convey to AT&T Local that a customer has left the LSP and moved to a new LSP. The new LSP could either be another Reseller, GTE or Facilities based provider.

**Data Delivery Schedule:** Six days a week, volumes fluctuating with change activity.

**Data Transfer Requirements:** Batch feed, sent end-of-day, via Connect/Direct NDM sent within 24 hours of the switch being provisioned.

**AT&T Data Center Receiving NODE:** NDMATTA1

**Dataset Name:** TMCD.LOCAL.LSPOUT.(+1) = Generation dataset

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### 1.1.1 HEADER RECORD LAYOUT:

| Field Name                               | Type | Length | Position  | Required | Contents       |
|--|------|--------|-----------|----------|----------------|
| Record Identification - Header           | A/N  | 0002   | 0001-0002 | R        | Numeric        |
| Record Identification - Direction        | A/N  | 0002   | 0003-0004 | R        | Numeric        |
| CREATE DATE                              | A/N  | 0006   | 0007-0012 | R        | YYMMDD         |
| SEQUENCE NUMBER                          | A/N  | 0004   | 0013-0016 | R        | Numeric (0000) |
| Access Provider (AP) Identification Code | A/N  | 0004   | 0017-0020 | R        | Numeric        |
| Sequence Group Identifier                | A/N  | 0002   | 0027-0028 | R        | Numeric        |
| Version Number                           | A/N  | 0004   | 0029-0032 | R        | Numeric        |
| LSP ID                                   | A/N  | 0004   | 0033-0036 | R        | Numeric        |

### 1.1.2 TRAILER RECORD LAYOUT:

| Field Name                               | Type | Length | Position  | Required | Contents       |
|--|------|--------|-----------|----------|----------------|
| Record Identification - Header           | A/N  | 0002   | 0001-0002 | R        | Numeric        |
| Record Identification - Direction        | A/N  | 0002   | 0003-0004 | R        | Numeric        |
| CREATE DATE                              | A/N  | 0006   | 0007-0012 | R        | YYMMDD         |
| SEQUENCE NUMBER                          | A/N  | 0004   | 0013-0016 | R        | Numeric (0000) |
| Access Provider (AP) Identification Code | A/N  | 0004   | 0017-0020 | R        | Numeric        |
| Sequence Group Identifier                | A/N  | 0002   | 0027-0028 | R        | Numeric        |
| Version Number                           | A/N  | 0004   | 0029-0032 | R        | Numeric        |
| LSP ID                                   | A/N  | 0004   | 0033-0036 | R        | Numeric        |
| Grand Total Record Count                 | A/N  | 0007   | 0115-0121 | R        | Numeric        |

### 1.1.3 DETAIL RECORD LAYOUT: (Required Data Elements)

| Field Name | Field Description                                 | Field Length | Field Position | Field Characteristic | Valid Values   |
|------------|---|--------------|----------------|----------------------|--|
| TCSI       | Indication of a change in Local Service Providers | 0004         | 0001           | Numeric              | Local Use Code to be Determined  |
| WTN        | Working Telephone Number                          | 0010         | 0021-0030      | Numeric              | Numeric  |
| Date       | Date  | 0006         | 0039-0044      | Numeric              | YYMMDD   |
| CTI        | Customer Type Indicator                           | 0001         | 0045           | Alpha                | R - Residence<br>B - Business<br>C - Civilian<br>I - Institutions<br>J - COCOTS<br>K - Coinless<br>L - Limited Collect |

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|                                 |   |      |           |         |  |
|---------------------------------|---|------|-----------|---------|--|
|                                 |   |      |           |         | Q - Public Pay Telephone<br>Z - Semi Public Pay Telephone<br>W - Wats<br>X - Centrex |
| Disconnect Date                 | Date that the LSP CHANGE NOTIFICATION FEED was provisioned in the Network.          | 0006 | 0427-0432 | Numeric | YYMMDD   |
| *Intralata PIC Change Indicator | Status of Intralata PIC. Notification of PIC change during the move to another LSP. | 0001 | 0888      | Alpha   | Y - Intralata PIC Changed<br>N - Intralata PIC did NOT Change                        |
| *Interlata PIC Change Indicator | Status of Interlata PIC. Notification of PIC change during the move to another LSP. | 0001 | 0889      | Alpha   | Y - Interlata PIC Changed<br>N - Interlata PIC did NOT Change                        |
| *NEW LSP ID                     | New LSP   | 0004 | 0890-0894 | Numeric | Numeric  |

**\*Requesting Information to support Outbound CARE, but not required.**

## 1.2 REQUIREMENT #2 - LSP SERVICE ORDER PIC ONLY CHANGE PROCESS

**Situation:** Customer has AT&T for Local and contacts AT&T Local requesting a change of PIC only from one LD Carrier to another.

**AT&T Local Process:** LD PIC Changes will be accepted by AT&T Local. AT&T Local will enter the PIC Change into the service order system, and will generate an LD PIC Change Order which will sent to GTE for provisioning.

**SWP Requirement:** Accept a PIC Only Change for an existing AT&T Local customer via the current Service Order feed. Provision the network, and convey the confirmation of the PIC Only order via the current Work Order Completion feed.

## 1.3 REQUIREMENT #3 - IXC PIC CHANGE PROCESS

**Situation:** Customer has AT&T Local and contacts a New IXC to change PIC to new LD Carrier.

**Upon receipt of an IXC-initiated '01' PIC order on a Resold line:**

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- GTE will reject the '01' order. Create the appropriate Industry Standard '3148', with the Local Service Provider ID of the Reseller and send the reject to the originating IXC. The reject must be returned within one business day.

**NOTE:** If GTE refuses to provide the Local Service Provider ID the record can be rejected with the Industry Standard transaction code '3147'.

#### **1.4 PIC Restricted**

In order for GTE to appropriately reject an IXC initiated "01" PIC Order on an AT&T Local WTN, GTE must implement a specific up-front edit. Do not apply a 'PIC Freeze' or a 'PIC Restriction'.

If the submitted WTN is a resold line assigned to AT&T Local (LSP ID 7421), reject the "01" PIC order with TCSI 3148. Populate LSP ID 7421 in positions 772-775 of the CARE record and return to the submitting IXC. If GTE were to reject the order for the reason of "restricted PIC" rather than "resold line," the submitting IXC would not know the line was resold. This would further delay the IXC's attempt to provision the line with the correct LSP.

The above edit process has nothing to do with "PIC Restriction." It is not AT&T Local's intent to provide GTE with end user PIC Restriction information since an end user's request for PIC restriction will be resident only on AT&T Local data bases. IXC initiated PIC orders received by AT&T Local will be edited for restricted PIC and returned to the submitting IXC with the appropriate reject TCSI if the WTN is found to be restricted.

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## GLOSSARY OF TERMS

| <u>Acronym</u> | <u>Definition</u>                |
|----------------|----------------------------------|
| ALEC           | Alternate Local Exchange Carrier |
| CARE           | Customer Account Record Exchange |
| CTI            | Customer Type Indicator          |
| Incumbent LEC  | Incumbent Local Exchange Company |
| ISI            | Industry Support Interface       |
| IXC            | Interexchange Carrier            |
| LAM            | Local Account Maintenance        |
| LD             | Long Distance                    |
| LEC            | Local Exchange Company           |
| LERG           | Local Exchange Routing Guide     |
| LSP            | Local Service Provider           |
| NDM            | Network Data Mover               |
| OCN            | Operating Company Number         |
| OUTPLOC        | LSP CHANGE NOTIFICATION          |
| PIC            | Primary Interexchange Carrier    |
| PLOC           | Primary Local Operating Carrier  |
| S/O            | Service Order                    |
| SWP            | Switch Provider                  |
| WTN            | Working Telephone Number         |

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**ATTACHMENT 8**  
**LOCAL NUMBER PORTABILITY**

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**ATTACHMENT 8**  
**LOCAL NUMBER PORTABILITY**

1. **GTE Provision of Local Number Portability**

GTE shall provide, to the extent technically feasible, number portability in accordance with requirements of the Act and the INP will be provided by GTE to AT&T, immediately upon the Effective Date of this Agreement. INP will be provided with minimum impairment of functionality, quality, reliability and convenience to subscribers of AT&T services. GTE will provide PNP as soon as it is technically feasible, in conformance with FCC rules and the Act.

2. **Interim Number Portability (INP)**

INP shall be provided by Remote Call Forwarding, Route Indexing, or Local Exchange Routing Guide (LERG) reassignment. AT&T shall specify on a per telephone number basis which method is to be employed and GTE shall provide such method to the extent technically feasible.

2.1 **Remote Call Forwarding**

Remote Call Forwarding (RCF) is an existing switch-based GTE service that may be used to provide subscribers with limited service-provider LNP by redirecting calls within the telephone network. When RCF is used to provide LNP, calls to the ported number will first route to the GTE switch to which the ported number was previously assigned. The GTE switch will then forward the call to a number with an NXX associated with the AT&T operated switch to which the number is ported. AT&T shall not be required to order any additional paths to handle multiple simultaneous calls to the same ported telephone number.

2.2 **Route Indexing**

Route Indexing (RI) may take two forms: Route Index-Portability Hub (RI-PH) or Directory Number-Route Index (DN-RI).

- 2.2.1 RI-PH will route a dialed call to the GTE switch associated with the NXX of the dialed number. The GTE switch shall then insert a prefix onto the dialed number which identifies how the call is to be routed to AT&T as the local service provider. The prefixed dialed number is transmitted to the GTE tandem switch to which AT&T is connected. The prefix is removed by the operation of the tandem switch and the dialed number is routed to AT&T's switch so the routing of the call can be completed by AT&T.
- 2.2.2 DN-RI is a form of RI-PH that requires direct trunking between the GTE switch to which the ported number was originally assigned and the AT&T switch to which the number has been ported. The GTE switch shall send the originally dialed number to the AT&T switch without a prefix.
- 2.2.3 GTE shall provide RI-PH or DN-RI on an individual telephone number basis, as AT&T designates. Where technically feasible, AT&T may designate both methods so that calls to ported numbers are first directed to the AT&T switch over direct trunks but may overflow to tandem trunks if all trunks in the direct group are occupied.
- 2.2.4 For both RI-PH and DN-RI the trunks used may, at AT&T's option, be the same as those used for exchange of other local traffic with GTE. At AT&T's option, the trunks shall employ SS7 or in band signaling and may be one way or two way.

### 2.3 LERG Reassignment

Portability for an entire NXX or thousands block (NXX-X) of numbers shall be provided by utilizing reassignment of the block to AT&T through the Local Exchange Routing Guide (LERG). Updates to translations in the GTE switching office from which the telephone number is ported will be made by GTE prior to the date on which LERG changes become effective, in order to redirect calls to the AT&T switch via route indexing.

### 2.4 Other Interim Portability Provisions

- 2.4.1 GTE shall exchange with AT&T, SS7 TCAP messages as required for the implementation of Custom Local Area Signaling Services (CLASS) or other features available in the GTE network.
- 2.4.2 GTE shall disclose to AT&T any technical or capacity limitations that would prevent use of a requested interim LNP implementation in a particular switching office. GTE and AT&T shall cooperate in the process of porting numbers to minimize customer out-of-service time, including updating switch translations where necessary within five (5) minutes after notification that physical cut-over has been completed (or initiated), as AT&T may designate.

- 2.4.3 AT&T shall have the right to use the existing GTE 911 infrastructure for all 911 capabilities. With respect to 911 service associated with ported numbers under INP, GTE agrees that all ported directory numbers (DN) will remain in the Public Service Answering Points (PSAP) routing databases. When RCF is used, both the ported numbers and shadow numbers for AT&T ported subscribers shall be stored in PSAP databases. AT&T shall have the right to verify the accuracy of the information in the PSAP databases.

3. **Permanent Number Portability (PNP)**

- 3.1 The requirements for PNP shall include the following:

- 3.1.1 A subscriber must be able to change local service providers and retain the same telephone number(s) and have availability of all vertical and advanced local service features.

- 3.1.2 The LNP network architecture shall not subject alternate local exchange carriers to any degradation of service compared to GTE in any relevant measure, including transmission quality, switching and transport costs, increased call set-up time and post-dial delay, and AT&T shall not be required to rely on the GTE network for calls completing to its ported customers.

3.2 **Joint Cooperation**

Both AT&T and GTE shall:

Support all emergency and operator services.

Use scarce numbering resources efficiently and administer such resources in a competitively neutral manner.

Jointly cooperate with each other to ensure that both carriers shall be able to rate and bill all types of calls.

Jointly cooperate with each other to apply PNP consistently on a nationwide basis, and in accordance with all Federal Communication Commission directives.

3.3 **Location Routing Number (LRN)**

GTE and AT&T shall work to implement the LRN-PNP solution.

- 3.3.1 A ten-digit code, consistent with the North American Numbering Plan, called the location routing number (LRN) shall be used as a network address for each switch that terminates subscriber lines, i.e. an end office. LRN shall support existing six-digit routing and may be implemented

without changes to existing switch routing algorithms. In existing end offices, the LRN shall be selected from one of its existing NPA-NXXs. New end offices shall be assigned LRNs through normal administrative processes.

- 3.3.2 LRN employs an "N-1" Query Strategy for interLATA or intraLATA toll calls, by which the originating carrier will pass the call to the appropriate toll carrier who will perform a query to an external routing database and efficiently route the call to the appropriate terminating local carrier either directly or through an access tandem office. For a local call to a ported number, the originating carrier is the "N-1" carrier. It will perform an external database query and pass the call to the appropriate terminating carrier. The "N-1" methodology will be used to extend portability on a phased, region-by-region basis and it does not place GTE or other carriers needlessly in the call path.
- 3.3.3 GTE will furnish AT&T with the first six digits of the originating LRN when it supplies AT&T with the Jurisdiction Information Parameter for the Initial Address Message.
- 3.3.4 GTE agrees to begin the introduction of LRN to end user subscribers who may begin changing local service providers and retaining their existing telephone number no later than October 1, 1997.
- 3.3.5 The generic requirements for LRN are specified in the following publications: Generic Switching and Signaling Requirements for Number Portability, Issue 1.00, February 12, 1996 [Editor - Lucent Technologies, Inc.]; Generic Requirements for SCP Application and GTT Function for Number Portability, Issue 0.31, Final Draft, March 24, 1996 [Editor - Ameritech Inc.]; and Generic Operator Services Switching Requirements for Number Portability, Issue 1.00, Final Draft, April 12, 1996 [Editor - Nortel].

#### **3.4 Additional PNP Requirements**

- 3.4.1 For local calls to a portable NXX, GTE shall query an external database as soon as the call reaches the first LNP-capable switch in the call path. An LNP capable originating switch shall query on a local call to a portable NXX as soon as it determines that it (the originating switch) does not serve the dialed number.
- 3.4.2 GTE shall be the default carrier for database queries where a participating carrier is unable to perform its own query due to abnormal conditions.

- 3.4.3 GTE will provide AT&T INP and PNP for subscribers moving to a different location, or staying at the same location, within the same rate center area.

3.5 **SMS Administration**

GTE will work cooperatively with other local service providers to establish the LNP Service Management System (SMS). The SMS shall be administered by a neutral third party, to provide for the efficient porting of numbers between carriers. GTE and AT&T shall cooperate to facilitate the expeditious deployment of LRN-based LNP through the process prescribed by the FCC, including, but not limited to, participation in the selection of a neutral third party and development of SMS, as well as SMS testing for effective procedures, electronic system interfaces, and overall readiness for use consistent with that specified for Provisioning in this Agreement.

4. **Requirements for INP and PNP**

4.1 **White and Yellow Page Listings**

GTE shall provide and maintain for AT&T one (1) white page and one (1) yellow page (if applicable) listing for each AT&T subscriber that has ported its number from GTE, consistent with that specified for Provisioning in this Agreement. The listing and handling of listed and nonlisted telephone numbers will be at least at parity with that provided by GTE to its own subscribers.

4.2 **Cut-Over Process**

GTE shall cooperate in the process of porting numbers from one carrier to another so as to limit service outage for the ported subscriber. This shall include, but not be limited to, updating its network element translations within five (5) minutes following notification by the industry SMS, or ported-to local service provider, and deploying such temporary translations as may be required to minimize service outage, e.g., unconditional triggers. Also, AT&T shall have the right to determine who initiates the order for interim LNP in specific cut-over situations.

4.3 **Testing**

GTE and AT&T shall cooperate in conducting AT&T's testing to ensure interconnectivity between systems. GTE shall inform AT&T of any system updates that may affect the AT&T network and GTE shall, at AT&T's request, perform tests to validate the operation of the network. Additional testing requirements may apply as specified by this Agreement.

#### 4.4 Non-Geographical Numbers

GTE shall not be required to provide number portability for non-geographic services (e.g., 500 and 900 NPAs, and 976 NXX number services) under this Agreement.

#### 4.5 Engineering and Maintenance

GTE and AT&T will cooperate to ensure that performance of trunking and signaling capacity is engineered and managed at levels which are at least at parity with that provided by GTE to its subscribers and to ensure effective maintenance testing through activities such as routine testing practices, network trouble isolation processes and review of operational elements for translations, routing and network fault isolation. Additional specific engineering and maintenance requirements shall apply as specified in this Agreement.

#### 4.6 Recording and Billing

GTE shall provide AT&T with accurate billing and Customer Account Record Exchange data for AT&T subscribers whose numbers have been ported.

4.6.1 Calls originated from RCF ported numbers in GTE end-offices and sent to the AT&T interLATA toll network must signal the shadow number in the Calling Party Number (CgPN) parameter and ported number in the Charge Number (CN) parameter in the SS7 Initial Address Message.

4.6.2 GTE shall supply AT&T with individual call records, with full call detail, that provide billing information associated with the RCF second call leg.

4.6.3 GTE must pay charges to AT&T for GTE originated calls that terminate to ported numbers at the AT&T end-office. These charges are equivalent to the AT&T customers changing rather than porting their telephone number.

4.6.4 GTE shall pay to the local service provider of the ported-to number all terminating access charges for calls transported from the interexchange carrier to the ported switch.

#### 4.7 Operator Services and Directory Assistance

With respect to operator services and directory assistance associated with LNP for AT&T subscribers, GTE shall provide the following:

4.7.1 While INP is deployed and prior to conversion to PNP:

- 4.7.1.1 If requested by AT&T, GTE shall provide Emergency Interrupt (EI) trunks to the AT&T End Office for BLV/BLI call requests for lines that terminate at the AT&T End Office.
- 4.7.1.2 When a BLV/BLI request for a ported number is directed to a GTE operator and the query is not successful (i.e., the request yields an abnormal result), the operator shall confirm whether the number has been ported and shall direct the request to the appropriate operator.
- 4.7.1.3 GTE shall remove from its Line Information Data Base (LIDB) all existing GTE issued Telephone Line Number (TLN)-based card numbers when a customer ports their number to AT&T.
- 4.7.1.4 GTE shall allow AT&T to order provisioning of TLN calling cards and Billed Number Screening (BNS), in its LIDB, for ported numbers, as specified by AT&T. GTE shall continue to allow AT&T access to its LIDB. Other LIDB provisions are specified in this Agreement.
- 4.7.1.5 Where GTE has control of directory listings for NXX codes containing ported numbers, GTE shall maintain entries for ported numbers as specified by AT&T.
- 4.7.2 When PNP is in place:
  - 4.7.2.1 The Provisions in 4.7.1.1-4.7.1.5 preceding, shall apply when PNP is in place.
  - 4.7.2.2 If Integrated Services Digital Network User Part (ISUP) signaling is used, GTE shall provide the Jurisdiction Information Parameter in the SS7 Initial Address Message. (See Generic Switching and Signaling Requirements for Number Portability, Issue 1.0, February 12, 1996 [Editor - Lucent Technologies, Inc.] )
  - 4.7.2.3 GTE shall provide a 10-digit Global Title Translation (GTT) Node for routing queries for TCAP-based operator services (e.g., LIDB).
  - 4.7.2.4 GTE OSS shall meet all requirements specified in "Generic Operator Services Switching Requirements for Number Portability," Issue 1.00, Final Draft, April 12, 1996 [Editor: Nortel]

**ATTACHMENT 9**

**NETWORK SECURITY**

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## **NETWORK SECURITY**

### **1. Protection of Service and Property**

GTE shall exercise the same degree of care to prevent harm or damage to AT&T, its employees, agents or customers, or their property as it employs to protect its own personnel, customers and property, etc. GTE, its employees, agents, or representatives agree to take reasonable and prudent steps to ensure the adequate protection of AT&T property and services, including, but not limited to:

- 1.1 Restricting access to AT&T equipment, support equipment, systems, tools and data, or spaces which contain or house AT&T equipment enclosures, to AT&T employees and other authorized non-AT&T personnel to the extent necessary to perform their specific job function. AT&T shall be responsible for maintaining security within its space (i.e., locking equipment enclosures, etc.). GTE will partition off collocation space and provide AT&T with a separate entrance to such space. If central office space does not permit partitioned space, GTE will escort AT&T personnel to and from AT&T equipment enclosures.
- 1.2 Furnishing to AT&T a current written list of GTE's employees who GTE authorizes to enter spaces which house or contain AT&T equipment or equipment enclosures, with samples of the identifying credentials to be carried by such persons.
- 1.3 Complying at all times with AT&T security and safety procedures and requirements, including but not limited to sign-in, identification, and escort requirements while in spaces which house or contain AT&T equipment or equipment enclosures and compliance with AT&T Corporate Security Instructions (CSIs) 1.01 "Admission to AT&T Premises", January 1987, CSI 1.10 "Physical Security For Shared Premises", Issue A, January 1987, and CSI 1.13 "Physical Security Criteria For Elements of the Network", Issue A, June 1987.
- 1.4 Allowing AT&T to inspect or observe spaces which house or contain AT&T equipment or equipment enclosures at any time and to furnish AT&T with all keys, entry codes, lock combinations, or other materials or information which may be needed to gain entry into any secured AT&T space.
- 1.5 Not using card access readers and devices that use cards which are encoded identically or mechanical coded locks on external doors or on internal doors to spaces which house AT&T equipment.

- 1.6 Insuring that the areas which house AT&T's equipment are adequately secured and monitored to prevent unauthorized entry.
- 1.7 Limiting the keys used in its keying systems for spaces which contain or house AT&T equipment or equipment enclosures to its employees and representatives to emergency access only. AT&T shall further have the right to change locks where deemed necessary for the protection and security of such spaces.
- 1.8 Installing security studs in the hinge plates of doors having exposed hinges with removable pins if such doors lead to spaces which contain or house AT&T equipment or equipment enclosures.
- 1.9 Providing real time notification to designated AT&T personnel to indicate an actual or attempted security breach in situations other than those in which AT&T has installed and monitors its own alarms.
- 1.10 Providing an acceptable back-up and recovery plan to be used in the event of a system failure or emergency.
- 1.11 Installing controls:
  - to disconnect a user for a pre-determined period of inactivity on authorized ports;
  - to protect customer proprietary information; and,
  - to databases to ensure both ongoing operational and update integrity.
- 1.12 Providing Logical Security:
  - securing all approved system and modem access through secured access.
  - establishing access to or connection with a network element through a secure network or security gateway.complying with AT&T Corporate Security Instruction 3.03 "Computer Security Requirements," March 1993, and AT&T Network Security Requirements 4.0, March 1996.

In cases in which there is shared systems access to GTE systems, GTE will provide access controls to its system based upon GTE's internal security standards, which standards shall include, at minimum, traditional log in and password procedures. AT&T shall be responsible for AT&T control installation.

## **2. Revenue Protection**

- 2.1 GTE shall make available to AT&T all present and future fraud prevention or revenue protection features, including prevention, detection, or control functionality embedded within any of the network elements. These features include, but are not limited to screening codes, call blocking of international, 800, 900/976, and 700 numbers and the capability to require end-user entry of an authorization code for dial tone. GTE shall additionally provide partitioned access to fraud prevention, detection and control functionality within pertinent Operations Support Systems ("OSS").
- 2.2 Uncollectible or unbillable revenues resulting from, but not confined to, provisioning, maintenance, or signal network routing errors shall be the responsibility of the party causing such error.
- 2.3 Uncollectible or unbillable revenues resulting from the accidental or malicious alteration of software underlying Network Elements or their subtending operational support systems by unauthorized third parties shall be the responsibility of the party having administrative control of access to said Network Element or operational support system software.
- 2.4 GTE shall be responsible for any uncollectible or unbillable revenues resulting from the unauthorized physical attachment to loop facilities from the Main Distribution Frame up to and including the Network Interface Device, including clip-on fraud.
- 2.5 GTE shall provide quick/soft dial tone to allow only the completion of calls to termination points required by law.

## **3. Law Enforcement Interface**

- 3.1 GTE shall provide seven day a week/ twenty-four hour a day installation and information retrieval pertaining to emergency traps, assistance involving emergency traces and emergency information retrieval on customer invoked CLASS services, including, without limitation, call traces requested by AT&T.
- 3.2 GTE shall provide all necessary assistance to facilitate the execution of wiretap or dialed number recorder orders from law enforcement authorities in emergency situations.

- 3.3 In nonemergency situations, GTE will advise the requesting law enforcement agency that the customer to be wire tapped is not a GTE customer but is an AT&T Customer. GTE will promptly notify AT&T of any court-ordered wiretap, dialed number recorder or trap which affects an AT&T customer.

**ATTACHMENT 10****ACRONYMS**

| <b>ACRONYM</b> | <b>DEFINITION</b>  |
|----------------|--|
| AAA            | American Arbitration Association   |
| AIN            | Advanced Intelligent Network   |
| ALEC           | Alternative Local Exchange Carrier   |
| ALI/DMS        | Automatic Location Identification/Data Management Systems                  |
| AMA            | Automated Message Accounting   |
| ANSI           | American National Standards Institute                                      |
| ARPM           | Average Revenue Per Message  |
| ATIS           | Alliance for Telecom Industry Solutions                                    |
| ATM            | Asynchronous Transfer Mode   |
| BICI           | Broadband Inter-Carrier Interface  |
| BITS           | Building Integrated Timing Supply  |
| BLV            | Busy Line Verification   |
| BRCS           | Business and Residential Customer Service                                  |
| C              | Network Element Combination  |
| C-DTTA         | Combo of Dedicated Transport & Tandem                                      |
| C-LPLS         | Combo of Loop & Local Switching  |
| C-LSCTSSDBTS   | *  |
| CABS           | Carrier Access Billing Systems   |
| CAMA ANI       | Centralized Automatic Message Accounting - Automatic Number Identification |
| CAP            | Competitive Access Provider  |
| CARE           | Customer Account Record Exchange   |
| CCITT          | Consultative Committee on International Telegraph & Telephone              |
| CCS            | Communications Channel Signaling   |
| CCSNIS         | Common Channel Signaling Network Interface Specification                   |
| CIC            | Carrier Identification Code  |
| CLASS          | Custom Local Area Signaling Service  |
| CLC            | Carrier Liaison Committee  |

\*Combo of: Local Switching, Common Transport, Signaling, Databases & Tandem Switching

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|        |  |
|--------|--|
| CLEC   | Competitive Local Exchange Carrier               |
| CLLI   | Common Language Location Identifier              |
| CMIP   | Coded Mark Inversion Protocol                    |
| CO     | Central Office                                   |
| CPE    | Customer Premises Equipment                      |
| CRDD   | Customer Requested Due Dates                     |
| CT     | Common Transport                                 |
| CTI    | Customer Type Indicator                          |
| CY     | Current Year                                     |
| DA     | Directory Assistance                             |
| DACS   | Digital Access Crossconnect Systems              |
| DB     | Database   |
| DB     | Service Central Points/Databases                 |
| DCC    | Data Communications Channel                      |
| DCS    | Digital Cross-Connect System                     |
| DID    | Direct Inward Dialing                            |
| DLC    | Digital Loop Carrier                             |
| DLCI   | Data Link Connection Identifier                  |
| DMOQs  | Direct Measures of Quality                       |
| DN     | Directory Numbers                                |
| DN-RI  | Directory Number - Route Index                   |
| DS-1   | Digital Signal Level One                         |
| DS-3   | Digital Signal Level Three                       |
| DS0    | Digital Signal Level Zero                        |
| DSN    | Data Set Name                                    |
| DSX    | Digital Cross Connect                            |
| DT     | Dedicated Transport                              |
| DTMF   | Dual-Tone Multi Frequency                        |
| E      | Network Element                                  |
| E&M    | Ear & Mouth Signaling                            |
| E-LP   | Element Loop                                     |
| EAMF   | Equal Access Multi-Frequency                     |
| EBCDIC | Extended Binary-Coded Decimal Interexchange Code |
| EBI    | Electronic Bonding Interface                     |
| EFT    | Electronic Fund Transfer                         |
| EI     | Electronic Interface                             |
| EI     | Emergency Interrupt                              |
| EMR    | Exchange Message Record                          |
| EO     | End Office                                       |
| ESF    | Extended Super Frame                             |

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|               |  |
|---------------|--|
| ESL           | Essential Service Line                           |
| ETTR          | Estimated Time to Repair                         |
| FDI           | Feeder Distribution Interface                    |
| FN            | Fiber Node                                       |
| FOC           | Firm Order Confirmation                          |
| FRF           | Frame Relay Forum                                |
| FUNI          | Framebased User to Network Interface             |
| GTT           | Global Title Translation                         |
| HDT           | Host Digital Terminal                            |
| HFC           | Hybrid Fiber Coax                                |
| HFC-HDT       | Hybrid Fiber Coax - Host Digital Terminal        |
| ID            | Remote Identifiers                               |
| IEC           | Interexchange Carrier                            |
| IECs          | Interexchange Carriers                           |
| IEEE          | Institute of Electrical and Electronic Engineers |
| IISP          | Interim Interswitch Signaling Protocol           |
| ILEC          | Incumbent Local Exchange Carrier                 |
| INA           | Integrated Network Access                        |
| Incumbent LEC | Incumbent Local Exchange Company                 |
| INP           | Interim Number Portability                       |
| ISDN          | Integrated Services Digital Network              |
| ISDNUP        | Integrated Services Digital Network User Part    |
| ISI           | Industry Support Interface                       |
| ISNI          | Intermediate Signal Network Identifier           |
| ISO           | International Standardization Organization       |
| ISUP          | Integrated Services User Part                    |
| ITU           | International Telecommunications Union           |
| IVMS          | Interswitch Voice Messaging Service              |
| IXC           | Interexchange Carrier                            |
| LAM           | Local Account Maintenance                        |
| LARG          | LIDB Access Routing Guide                        |
| LASS          | Local Area Signaling Services                    |
| LATA          | Local Access Transport Area                      |
| LC            | Loop Concentrator/Multiplexor                    |
| LCC           | Line Class Code                                  |
| LD            | Loop Distribution                                |
| LEC           | Local Exchange Carrier                           |
| LEC DA        | LEC Directory Assistance                         |
| LEC SCE       | LEC Service Creation Environment                 |
| LEC SCP       | LEC Service Control Point                        |

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|         |  |
|---------|--|
| LEC SMS | LEC Service Management System                        |
| LEC SSP | LEC Service Switching Point                          |
| LERG    | Local Exchange Routing Guide                         |
| LF      | Loop Feeder  |
| LGX     | Lightguide Cross-Connect                             |
| LIDB    | Line Information Data Base                           |
| LMI     | Local Management Interface                           |
| LNP     | Local Number Portability                             |
| LP      | Loop   |
| LRECL   | Logical Record Length                                |
| LRN     | Local Routing Number                                 |
| LS      | Local Switching                                      |
| LSO     | Local Serving Office                                 |
| LSP     | Local Service Provider                               |
| LSSGR   | LATA Switching Systems Generic Requirements          |
| MDF     | Main Distribution Frame                              |
| MDU     | Multiple Dwelling Unit                               |
| MDU/BCL | Multiple Dwelling Unit/Business Customer Location    |
| MF      | Multi-Frequency                                      |
| MIB     | Management Information Base                          |
| MLT     | Mechanized Loop Tests                                |
| MOP     | Methods of Procedure                                 |
| MOS     | Modified Operator Services                           |
| MR      | Modification Request                                 |
| MRVT    | MTP Routing Verification Test                        |
| MSAG    | Master Street & Address Guide                        |
| MTP     | Message Transfer Port                                |
| NDM     | Network Data Mover                                   |
| NEBS    | Network Equipment Building System                    |
| NI      | Network Interface Device                             |
| NID     | Network Interface Device                             |
| NIU     | Network Interface Unit                               |
| NMS     | Network Management System                            |
| NNI     | Network to Network Interface                         |
| NVT     | Network Validation Test                              |
| OAM     | Operation and Maintenance                            |
| OAM&P   | Operations Administration Maintenance & Provisioning |
| OBF     | Ordering & Billing Forum                             |
| OC      | Optical Carrier                                      |
| OCN     | Operating Company Number                             |

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|         |  |
|---------|--|
| ODS     | Optical Distribution                           |
| OLI     | Originating Line Indicator                     |
| OMAP    | Operations, Maintenance & Administration Part  |
| ORT     | Operational Readiness Test                     |
| OS      | Operator Services                              |
| OSPS    | Operator Services Position System              |
| OSS     | Operations Support Systems                     |
| OSSGR   | Operator Services Systems Generic Requirements |
| OUTPLOC | LSP CHANGE NOTIFICATION                        |
| PBX     | Private Branch Exchange                        |
| PDH     | Plesiochronous Digital Hierarchy               |
| PEC     | Primary Exchange Carrier                       |
| PIC     | Primary Interexchange Carrier                  |
| PLOC    | Primary Local Operating Carrier                |
| PNP     | Permanent Number Portability                   |
| POI     | Point of Interface                             |
| POI     | Points of Interconnection                      |
| POT     | Point of Termination                           |
| POTS    | Plain Old Telephone Service                    |
| PRI     | Primary Rate Interface                         |
| PSAP    | Public Safety Answering Point                  |
| PUC     | Public Utilities Commission                    |
| RAO     | Regional Accounting Office                     |
| RCF     | Remote Call Forwarding                         |
| RECFM   | Record Format                                  |
| RI      | Route Index                                    |
| RI-PH   | Route Index - Portability Hub                  |
| ROW     | Right of Way                                   |
| RPC     | Regional Processing Center                     |
| RSM     | Remote Switch Module                           |
| RT      | Remote Terminal                                |
| SAG     | Street Address Guide                           |
| SCCP    | Signaling Connection Control Point             |
| SCP     | Service Control Points                         |
| SDH     | Synchronous Digital Hierarchy                  |
| SECAB   | Small Exchange Carrier Access Billing          |
| SL      | Signaling Link Transport                       |
| SMDI-E  | Standard Message Desk Interface - Enhanced     |
| SMS     | Service Management System                      |
| SNMP    | Simple Network Management Protocol             |

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|         |   |
|---------|---|
| S/O     | Service Order   |
| SONET   | Synchronous Optical Network   |
| SPOC    | Single Point of Contact   |
| SPOI    | Signaling Point of Interconnection  |
| SRVT    | SCCP Routing Verification Test  |
| SS      | SS7 Message Transfer & Connection Control                                   |
| SS7     | Signaling System 7  |
| SSP     | Switching Services Port   |
| STP     | Signaling Transfer Point  |
| STS     | Synchronous Transport Signal  |
| SWF-DSI | Switched Functional DS1 Service Capability                                  |
| SWP     | Switch Provider   |
| T&M     | Time & Material   |
| TCAP    | Transaction Capabilities Application Port                                   |
| TDEV    | Time Deviation  |
| TDI     | Tie Down Information  |
| TIA/EIA | Telecommunications Industries Association/Electronic Industries Association |
| TR      | Technical Requirements  |
| TS      | Tandem Switching  |
| TSG     | Trunk Sub-Group   |
| TSGR    | Transport System Generic Requirements                                       |
| TSLRIC  | Total Service Long Run Incremental Cost                                     |
| TSP     | Telecommunications Services Priority  |
| UNI     | User to Network Interface   |
| VB      | Variable Block  |
| VCI     | Virtual Channel Identifier  |
| VF      | Voice Frequency   |
| WDM     | Wavelength Division Multiplexing  |
| WTN     | Working Telephone Number  |

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**ATTACHMENT 11****DEFINITIONS**

**"Act"** means the Telecommunications Act of 1996.

**"Advanced Intelligent Network (AIN)"** is a network functionality that permits specific conditions to be programmed into a switch which, when met, directs the switch to suspend call processing and to receive special instructions for further call handling instructions in order to enable carriers to offer advanced features and services.

**"Affiliate"** means, with respect to any Party, a corporation or other entity directly or indirectly controlled by, controlling or under common control with such Party. "Control" means the power to direct the management and policies of the entity whether through the ownership of voting securities by agreement, or otherwise.

**"AMA"** means the Automated Message Accounting structure inherent in switch technology that initially records telecommunication message information. AMA format is contained in the Automated Message Accounting document, published by Bellcore as GR-1100-CORE which defines the industry standard for message recording.

**"Applicable Law"** shall mean all laws, statutes, common law, regulations, ordinances, codes, rules, guidelines, orders, permits and approvals of any Governmental Authority, including without limitation those relating to the environment, health and safety, which apply or relate to Work Locations or the subject matter of this Agreement.

**"AT&T"** has the meaning set forth in the preamble.

**"AT&T Customer"** means any business or residential customer for AT&T services.

**"Automatic Location Identification/Data Management System (ALI/DMS)"** means the emergency services (E911/911) database containing customer location information (including name, address, telephone number, and sometimes special information from the local service provider) used to determine to which Public Safety Answering Point ("PSAP") to route the call.

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**"Automatic Route Selection (ARS)"** is a service feature that provides for automatic selection of the least expensive or most appropriate transmission facility for each call based on criteria programmed into the system.

**"BLV/BLI (Busy Line Verify/Busy Line Interrupt) Traffic" or "BLV/BLI Call"** means an operator call in which the end user inquires as to the busy status of, or requests an interruption of, a call on an Exchange Service.

**"CABS"** means the Carrier Access Billing System which is contained in a document prepared under the direction of the Billing Committee of the OBF. The Carrier Access Billing System document is published by Bellcore in Volumes 1, 1A, 2, 3, 3A, 4 and 5 as Special Reports SR-OPT-001868, SR-OPT-001869, SR-OPT-001871, SR-OPT-001872, SR-OPT-001873, SR-OPT-001874, and SR-OPT-001875, respectively, and contains the recommended guidelines for the billing of access and other connectivity services.

**"CENTRANET"** means a Telecommunications Service that uses central office switching equipment for call routing to handle direct dialing of calls, and to provide many private branch exchange-like features.

**"CLASS (Custom Local Area Signaling Service) and LASS (Local Area Signaling Service)"** means a grouping of optional enhancements to basic local exchange service that offers special call handling features to residential and single-line business customers (e.g., call waiting, call forwarding and automatic redial).

**"Collocation"** means the right of AT&T to obtain dedicated space in the GTE Local Serving Office (LSO) or other GTE locations and to place equipment in such spaces to interconnect with the GTE network. Collocation also includes GTE providing resources necessary for the operation and economical use of collocated equipment.

**"Combinations"** ("Combinations") consist of multiple Elements that are logically related to enable AT&T to provide service in a geographic area or to a specific customer and that are placed on the same order by AT&T.

**"Conduit"** means a tube or protected through that may be used to house communication or electrical cables. Conduit may be underground or above ground (for example, inside buildings) and may contain one or more inner ducts.

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**"Confidential Information"** has the meaning set forth in Section 18.1 of the General Terms and Conditions.

**"Contract Year"** means a twelve (12) month period during the term of the contract commencing on the Effective Date and each anniversary thereof.

**"Customer Usage Data"** means the local Telecommunications Services usage data of an AT&T Customer, measured in minutes, sub-minute increments, message units, or otherwise, that is recorded by GTE and forwarded to AT&T.

**"Directory Listings"** has the meaning set forth in Section 20.1 of this Agreement.

**"Discloser"** means that party to this Agreement which has disclosed Confidential Information to the other party.

**"Disputes"** mean all disputes, claims or disagreements arising under or related to this Agreement or the breach thereof.

**"Effective Date"** is the date indicated in the Preface on which this Agreement shall become effective.

**"EMR"** means the Exchange Message Record System used among GTEs for exchanging telecommunications message information for billable, non-billable, sample, settlement and study data. EMR format is contained in BR-010-200-010 CRIS Exchange Message Record, published by Bellcore and which defines the industry standard for exchange message records.

**"Environmental Hazard"** means any substance the presence, use, transport, abandonment or disposal of which (1) requires investigation, remediation, compensation, fine or penalty under any Applicable Law (including, without limitation, the Comprehensive Environmental Response Compensation and Liability Act, Superfund Amendment and Reauthorization Act, Resource Conservation Recovery Act, the Occupational Safety and Health Act and provisions with similar purposes in applicable foreign, state and local jurisdictions) or (ii) poses risks to human health, safety or the environment (including, without limitation, indoor, outdoor or orbital space environments) and is regulated under any Applicable Law.

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**"Enhanced White Pages"** means optional features available for White Pages Directory listings (e.g., bold, all capitals, additional line of text, indented).

**"Enhanced Yellow Pages"** means optional features available for Yellow Pages Directory listings (e.g., red type, bold, all capitals, additional line of text, indented).

**"E911 Service"** is a method of routing 911 calls to a PSAP that uses customer location data in the ALI/DMS to determine the PSAP to which a call should be routed.

**"FCC"** means the Federal Communications Commission.

**"Governmental Authority"** means any federal, state, local, foreign or international court, government, department, commission, board, bureau, agency, official, or other regulatory, administrative, legislative or judicial authority with jurisdiction.

**"Interim Number Portability (INP)"** means the delivery of LNP capabilities, from a customer standpoint in terms of call completion, with as little impairment of functioning, quality, reliability, and convenience as possible and from a carrier standpoint in terms of compensation, through the use of existing and available call routing, forwarding, and addressing capabilities.

**"Line Information Data Base(s) (LIDB)"** means one or all, as the context may require, of the Line Information Databases owned individually by IGTEs and other entities which provide, among other things, calling card validation functionality for telephone line number cards issued by IGTEs and other entities. A LIDB also contains validation data for collect and third number-billed calls, which include billed number screening.

**"Local Number Portability (LNP)"** means the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another.

**"Local Service"** has the meaning set forth in Section 23.1 of Part 1.

**"MECAB"** means the Multiple Exchange Carrier Access Billing document prepared under the direction the Billing Committee of the OBF which functions under the auspices of the Carrier Liaison Committee of the Alliance for

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Telecommunications Industry Solutions. The Multiple Exchange Carrier Access Billing ("MECAB") document, published by Bellcore as Special Report SR-BDS-000983, contains the recommended guidelines for the billing of access and other connectivity services provided by two or more GTEs (including GTEs and CGTEs), or by one GTE or CGTE in two or more states within a single LATA.

**"MECOD"** means the Multiple Exchange Carriers Ordering and Design (MECOD) Guidelines for Access Services- Industry Support Interface, a document developed under the auspices of the Billing Committee of the OBF which functions under the auspices of the Carrier Liaison Committee of the Alliance for Telecommunications Industry Solutions. The MECOD document, published by Bellcore as Special Report SR STS-002643, establishes recommended guidelines for processing orders for access and other connectivity services which is to be provided by two or more LECs (including a LEC and a CLEC), or by one LEC or CLEC in two or more states within a single LATA.

**"Network Element"** means a facility or equipment used in the provision of a telecommunications service. Network Element includes features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.

**"911 Service"** means a universal telephone number which gives the public direct access to the PSAP. Basic 911 service collects 911 calls from one or more local exchange switches that serve a geographic area. The calls are then sent to the correct authority designated to receive such calls.

**"OBF"** means the Ordering and Billing Forum (OBF), which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS).

**"Parties"** means AT&T and GTE.

**"Permanent Number Portability (PNP)"** means the use of the Local Routing Number (LRN) database solution to provide fully transparent LNP for all customers and all providers without limitation.

**"Pole Attachment"** means the connection of a facility to a utility pole. Some examples of facilities are mechanical hardware, grounding and transmission cable, and equipment boxes.

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**"Public Safety Answering Point (PSAP)"** means the designated agency to which calls to E911/911 services are routed.

**"Real Time"** means the actual time in which an event takes place, with the reporting on or the recording of the event practically simultaneous with its occurrence.

**"Recipient"** means that party to this Agreement to which Confidential Information has been disclosed by the other party.

**"Recorded Usage Data"** has the meaning set forth in Attachment 7.1.

**"Release"** means any release, spill, emission, leaking, pumping, injection, deposit, disposal, discharge, dispersal, leaching, or migration, including without limitation, the movement of Environmental Hazards through or in the air, soil, surface water or groundwater, or any action or omission that causes Environmental Hazards to spread or become more toxic or more expensive to investigate or remediate.

**"Right of Way (ROW)"** means the right to use the land or other property of another party to place poles, conduits, cables, other structures and equipment, or to provide passage to access such structures and equipment. A ROW may run under, on, or above public or private property (including air space above public or private property) and may include the right to use discrete space in buildings, building complexes or other locations.

**"GTE"** has the meaning set forth in the preface. The terms Local Exchange Company ("GTE"), Incumbent Local Exchange ("IGTE") and GTE are used interchangeably throughout this Agreement and shall have the same meaning.

**"SECAB"** means the Small Exchange Carrier Access Billing document prepared by the Billing Committee of the OBF. The Small Exchange Carrier Access Billing document, published by Bellcore as Special Report SR OPT - 001856, contains the recommended guidelines for the billing of access and other connectivity services.

**"Served Premises"** means collectively, the AT&T designated locations to which AT&T orders Network Elements, Ancillary Functions or Combinations.

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**"Telephone Relay Service"** has the meaning set forth in Section 25.5 of Attachment I.

**"Thousands Block of Numbers"** shall mean 1000 or more consecutive numbers beginning and ending on a digit boundary, e.g., 949-1000 to 949-1999.

**"Voluntary Federal Customer Financial Assistance Programs"** are Telecommunications Services provided to low-income subscribers, pursuant to requirements established by the appropriate state regulatory body.

**"Waste"** means all hazardous and non-hazardous substances and materials which are intended to be discarded, scrapped, or recycled, associated with activities AT&T or GTE or their respective contractors or agents perform at Work Locations. It shall be presumed that all substances or materials associated with such activities, that are not in use or incorporated into structures (including without limitation damaged components or tools, leftovers, containers, garbage, scrap, residues or byproducts), except for substances and materials that AT&T, GTE or their respective contractors or agents intend to use in their original form in connection with similar activities, are Waste. "Waste" shall not include substances, materials or components incorporated into structures (such as cable routes) even after such components or structure are no longer in current use.

**"Work Locations"** means any real estate that GTE owns, leases or licenses or in which it holds easements or other rights to use, or does use, in connection with this Agreement.

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**ATTACHMENT 12**

**RESERVED**

# **ATTACHMENT 13**

**RESERVED FOR  
ELECTRONIC INTERFACE**

# **ATTACHMENT 14**

**RESERVED FOR  
PRICING**