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In The Matter Of The
Interconnection Agreement
Negotiations Between AT&T
And BellSouth Pursuant To
47 U.S.C.§252

AT&T'S DOCUMENTS SUBMITTED UNDER THE TELECOMMUNICATIONS ACT OF 1996

VOLUME X

TABS 259

JULY 17, 1996

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FPSC-RECORDS/REPORTING

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of the Interconnection Agreement Negotiations Between AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC. and BELLSOUTH TELECOMMUNICATIONS, INC., Pursuant to 47 U.S.C. Section 252	DOCKET NO. _____ PETITION BY AT&T FOR ARBITRATION UNDER THE TELECOMMUNICATIONS ACT OF 1996

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* Documents indexed at Tabs 346 through 435 are not included herein because they have been designated by BellSouth as containing information that is proprietary and confidential to BellSouth. Documents indexed at Tabs 292 through 345 are being submitted in a separate volume because these documents contain information that is proprietary and confidential to AT&T. See AT&T's Stipulated Protective Order, filed today.

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William J. (Jim) Carroll
Vice President

Room 4170
1200 Peachtree St. NE
Atlanta GA 30309
404 810-7262

June 28, 1996

VIA HAND DELIVERY

Mr. Charles B. Coe
Group President-Customer Operations
BellSouth Telecommunications, Inc.
675 West Peachtree Street,
Suite 4514
Atlanta, Georgia 30375

Dear Charlie:

Enclosed for your review please find a draft comprehensive Interconnection Agreement underwhich BellSouth will provide the resale of local services, the sale of unbundled network elements, and interconnection to AT&T pursuant to the Telecommunications Act of 1996. This draft agreement includes the AT&T requirements modified to reflect the Local Services Resale ("LSR") proposal AT&T provided BellSouth on June 5, 1996, and the unbundled elements and interconnection proposals provided to BellSouth on June 21, 1996. As I indicated in those proposals, this is a "package proposal." No single item or sub-group of items stands alone. BellSouth must accept the entire proposal.

AT&T previously has provided to BellSouth Attachments 2, 3, 4, 5, 6, 7, 8 and 13 of the agreement during the course of negotiations. AT&T has attempted to incorporate the specific agreements reached at the Core, SME, and Executive Team levels in these attachments and throughout the draft. AT&T also has attempted to indicate where items have been raised in negotiations, but are subject to disagreement, or are not finalized and continue to be subject to negotiation. AT&T reserves the right to change any language in this document until the final document is executed.

This draft agreement consists of AT&T Proprietary Restricted information. Part IV, the Pricing Section, in particular, contains commercially sensitive information whose disclosure to unauthorized persons could harm AT&T. The entire document is being provided under the terms of our confidentiality agreement, entered into for purposes of negotiations under the Telecommunications Act of 1996, and, therefore, may not be disclosed or used by BellSouth in any regulatory proceedings or with any other

parties and should be restricted to individuals within BellSouth with a "need to know" regarding negotiations.

As discussed, for your convenience and to assist BellSouth in providing a comprehensive and appropriate response, AT&T also will be forwarding a diskette containing the draft agreement. AT&T looks forward to working with BellSouth to finalize the agreement. In the days ahead, we would expect to make joint improvement through negotiations. As noted in our June 21, 1996, proposal and at our June 27, 1996, Executive Team meeting, we are awaiting cost information from BellSouth in order to finalize our unbundled network element prices and we still await a counter proposal to our June 5 LSR proposal.

Please call me if you have any questions.

Sincerely,

Vice President

cc: Mr. Scott Schaefer
Ms. Suzie Lavett
Ms. Mary Jo Peed

AGREEMENT

between

BellSouth Telecommunications, Inc.

and

AT&T Corp.

Effective Date: _____, 1996

002582

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ATTACHMENTS

PREFACE

AGREEMENT

This Agreement, which shall become effective as of the ____ day of _____, 1996, 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 BellSouth Telecommunications, Inc. ("BellSouth"), a Georgia corporation, having an office at 675 West Peachtree Street, Atlanta, Georgia, 30375, on behalf of itself, and its Affiliates.

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; and

WHEREAS, BellSouth is an Incumbent Local Exchange Carrier or has a majority ownership interest in local exchange companies which are Incumbent Local Exchange Carriers; and

WHEREAS, BellSouth is willing to provide interconnection, unbundled network elements, ancillary functions and additional features, as well as Telecommunications Services for resale, on the terms and subject to the conditions of this Agreement; and

WHEREAS, AT&T is a Telecommunications Carrier and has requested that BellSouth negotiate an Agreement with AT&T for the provision of interconnection, unbundled network elements, ancillary functions and additional features as well as Telecommunications Services for resale, pursuant to the Act and in conformance with BellSouth's duties under the Act; and

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

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

DEFINITIONS and ACRONYMS

For purposes of this Agreement, certain terms have been defined in Attachment 11 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 in the Act. For convenience of reference only, Attachment 10 provides a list of acronyms used throughout this Agreement.

GENERAL TERMS AND CONDITIONS

1. Provision of Local Service and Unbundled Network Elements

This Agreement sets forth the terms, conditions and prices under which BellSouth agrees to provide (a) Telecommunications Service that BellSouth currently provides, or may offer hereafter for resale along with the Support Functions and Service Functions set forth in this Agreement (hereinafter collectively 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, and intrastate and interstate exchange access services. This Agreement also sets forth the terms and conditions for the interconnection of AT&T's network to BellSouth's network and the reciprocal compensation for the transport and termination of telecommunications. BellSouth may fulfill the requirements imposed upon it by this Agreement by itself or may cause its Affiliates to take such actions to fulfill the responsibilities. This Agreement includes Parts I through IV, and their Attachments 1 - 13 and all accompanying Appendices. Unless otherwise provided in this Agreement, BellSouth will perform all of its obligations hereunder throughout its entire service area. 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 BellSouth 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. BellSouth 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 BellSouth and AT&T, this Agreement shall become effective as of the Effective Date stated above, and shall expire five (5) years from the Effective Date, unless renewed by AT&T or terminated earlier in accordance with the provisions of this Agreement. BellSouth shall give AT&T notice of the impending expiration of this Agreement (or any renewable term thereof) ninety (90) days before such expiration. AT&T shall have the right to extend the term of this Agreement, in its sole discretion, for successive one-year periods ("Renewal Year") upon expiration of the initial term or any subsequent Renewal Year. Each renewal shall be effective upon notice to BellSouth by AT&T. At the expiration of the term of this Agreement, or any renewal thereof, this Agreement shall continue in effect, on a month-to-month basis, at the same terms, conditions and prices as those in effect at the end of the latest term, or renewal, until terminated by AT&T.

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 sixty (60) days written notice to BellSouth. In such case, AT&T's liability shall be limited to payment of the amounts due for Network Elements, Combinations and Local Services provided up to and including the date of termination. BellSouth recognizes that the Network Elements, Combinations and Local Services 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 such comparable Network Elements, Combinations or Local Services. BellSouth agrees to cooperate in an orderly and efficient transition to AT&T or another vendor. BellSouth further agrees to coordinate the orderly transition to AT&T or another vendor such that the level and quality of the Network Elements, Combinations and Local Services is not degraded and to exercise its best efforts to effect 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 BellSouth 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 or pursuant to any applicable tariff, in which event such specific period and conditions shall apply.

3.3 If a Party is in breach of a material term or condition of this Agreement ("Defaulting Party"), the other Party shall provide written notice of such breach to the Defaulting Party. The Defaulting Party shall have ten (10) days from receipt of notice to cure the breach. If the breach is not cured, the Parties shall follow the dispute resolution procedure of Section 16 and Attachment 1. If the Arbitrator determines that a breach has occurred and the Defaulting Party fails to comply with the decision of the Arbitrator within the time period provided by the Arbitrator (or a period of thirty (30) days if no time period is provided for in the Arbitrator's order), this Agreement may be terminated by the other Party upon sixty (60) days prior written notice.

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. Where 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, Network Elements and Combinations Under Other Agreements**

If as a result of any proceeding or filing before any Court, State Commission, or the Federal Communications Commission, voluntary agreement or arbitration proceeding pursuant to the Act or pursuant to any applicable state law, BellSouth becomes obligated to provide Local Services, Network Elements or Combinations, whether or not presently covered by this Agreement, to a third party at rates or on terms and conditions more favorable to such third party then the applicable provisions of this Agreement, AT&T shall have the option to substitute, in whole or in part, such more favorable rates, terms, or conditions for the relevant provisions of this Agreement which shall apply to the same States as such other party, and such substituted rates, terms or conditions shall be deemed to have been effective under this Agreement as of the effective date thereof. BellSouth shall provide to AT&T any BellSouth agreement between BellSouth and any third party existing as of the Effective Date of this agreement within five (5) days of the Effective Date or, within five (5) days after the execution of any such agreement, whichever is earlier. **[Pre-Act agreements are subject to negotiation]**

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 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 BellSouth each shall comply at its own expense 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 BellSouth 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. BellSouth shall accept orders for Local Service, Network Elements or Combinations in accordance with the Federal Communications Commission Rules or State Commission Rules. BellSouth, at its own expense, 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 BellSouth to provide the Network Elements, Local Services and Combinations pursuant to this Agreement.

8. **Responsibility For Environmental Contamination** 002559

8.1 AT&T shall in no event be liable to BellSouth 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. BellSouth 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 BellSouth, its contractors or agents introduce to the Work Locations or (ii) the presence or Release of any Environmental Hazard for which BellSouth is responsible under Applicable Law.

8.2 BellSouth shall in no event be liable to AT&T for any costs whatsoever resulting from the presence or Release of any Environmental Hazard that BellSouth did not introduce to the affected Work Location. AT&T shall indemnify, defend (at BellSouth's request) and hold harmless BellSouth, 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 BellSouth shall be responsible for obtaining and keeping in effect all Federal Communications Commission, State Commissions, 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 Federal Communications Commission, 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 BellSouth in obtaining and maintaining any required approvals for which BellSouth is responsible, and BellSouth shall reasonably cooperate with AT&T in obtaining and maintaining any required approvals for which AT&T is responsible.

9.2 In the event that BellSouth is required by any governmental authority to file a tariff or make another similar filing in connection with the performance of any action that would otherwise be governed by this Agreement, BellSouth 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 BellSouth that are no less favorable than 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 BellSouth file any tariff that purports to govern Local Service, Network Elements or Combinations that is inconsistent with the rates and other terms and conditions set forth in this Agreement, unless such rate or other terms and conditions are more favorable than those set forth in this Agreement. If

subsequent to the effective date of any such tariff, BellSouth is ordered not to file tariffs with the State regulatory commission or the Federal Communications Commission, or is permitted not to file tariffs (and elects not to do so), either generally or for specific Network Elements, Combinations or Local Services, 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 In the event that 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 BellSouth to perform any material terms of this Agreement, AT&T or BellSouth may, on thirty (30) days' written notice (delivered not later than thirty (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. In the event that such new terms are not renegotiated within ninety (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 BellSouth - The liability of BellSouth to AT&T during any contract year resulting from any and all causes other than as specified in Section 12 (and the attachment referenced in that Section), Sections 7, 8, and 10.4, and Attachments 1 and 7 (Appendix 1), shall not exceed the amounts owing AT&T during the contract year in which such cause arises or accrues.

10.2 Liabilities of AT&T - The liability of AT&T to BellSouth during any contract year resulting from and all causes, other than as specified in Sections 7, 8, and 10.4 and Attachment 1, shall not exceed the amounts owing BellSouth during the contract year in which such cause arises or occurs.

10.3 **No Consequential Damages** - NEITHER AT&T NOR BELLSOUTH 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 BELLSOUTH'S OR AT&T'S LIABILITY TO THE OTHER FOR (i) WILLFUL OR INTENTIONAL MISCONDUCT (INCLUDING GROSS NEGLIGENCE); (ii) BODILY INJURY. DEATH OR DAMAGE TO TANGIBLE REAL OR TANGIBLE PERSONAL PROPERTY PROXIMATELY CAUSED BY BELLSOUTH'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 12 (REMEDIES FOR FAILURE TO MEET DMOQS) 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; Cooperation** - Whenever a Claim shall arise for indemnification under this Section 10, 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. **Audits and Inspections**

11.1 Subject to BellSouth's reasonable security requirements and except as may be otherwise specifically provided in this Agreement, AT&T may audit BellSouth's books, records and other documents once in each Contract Year for the purpose of evaluating the accuracy of BellSouth's billing 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 BellSouth.

11.2 BellSouth shall promptly correct any billing 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.

11.3 BellSouth shall cooperate fully in any such audit, providing reasonable access to any and all appropriate BellSouth employees and books, records and other documents reasonably necessary to assess the accuracy of BellSouth's bills.

11.4 AT&T may audit BellSouth'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 BellSouth's favor with an aggregate value of at least two percent (2%) of the amounts payable by AT&T for Local Services, Network Elements or Combinations provided during the period covered by the audit.

11.5 Audits shall be at AT&T's expense, subject to reimbursement by BellSouth 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 for the Local Services, Network Elements and Combinations during the period covered by the audit.

11.6 Upon (i) the discovery by BellSouth of overcharges not previously reimbursed to AT&T or (ii) the resolution of disputed audits, BellSouth 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.

11.7 Subject to BellSouth's's reasonable security requirements and except as may be otherwise specifically provided in this Agreement, AT&T may inspect once, in each Contract Year, BellSouth's's books, records and other documents related in any way to the Local Services, Network Elements or Combinations provided to AT&T for the purpose of evaluating BellSouth's'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.

12. **Remedies for Failure to Meet DMOQs**

12.1 In providing Local Services, Network Elements and Combinations, BellSouth will provide AT&T with at least the capability to provide an AT&T customer with the same experience as BellSouth provides its own customers. BellSouth shall satisfy all service standards, measurements, performance

requirements, and Direct Measures of Quality (collectively referred to herein as "DMOQs") that are specified in this Agreement. In addition, BellSouth's performance under this Agreement shall provide AT&T with the capability to meet standards or other measurements that are at least equal to the highest level that BellSouth provides or is required to provide by law or its own internal procedures. In the event that the DMOQs specified in the Agreement are different than the standards or measurements that BellSouth provides or is required to provide by law or its own internal procedures, the highest DMOQ, standard or measurement shall apply.

12.2 BellSouth and AT&T agree that delays in the provision of Local Services, Network Elements or Combinations, failures to meet the DMOQs required by this Agreement and delays in providing Customer Usage Data in accordance with the requirements of this Agreement, will cause AT&T to suffer damages, the amount of which cannot easily be determined.

12.3 In the event that any Network Element, Combination or Local Service is not installed or provisioned in accordance with the Due Dates specified in this Agreement, BellSouth shall grant AT&T a credit ("Delay Credit") calculated as provided in Attachment 12 of this Agreement.

12.4 In the event that a Network Element, a Combination or a Local Service fails to meet the DMOQ requirements imposed by this Agreement (or is interrupted causing loss of continuity or functionality), BellSouth shall grant AT&T a credit ("Performance Failure Credit"), as set forth in Attachment 12 of this Agreement.

12.5 In the event that Customer Usage Data is not provided within the time period required by this Agreement, or in the event that Customer Usage Data is not provided in accordance with the specifications of this Agreement, BellSouth shall grant AT&T a credit ("Customer Usage Credit") calculated as provided in Attachment 12 of this Agreement.

12.6 AT&T also shall have the option to obtain an alternative Network Element, Combination or Local Service from BellSouth to replace any Network Element(s), Combination(s) or Local Service(s) for which a Performance Failure Credit or Delay Credit is due. BellSouth will be responsible for any amounts (including installation charges) in excess of the otherwise applicable charges under this Agreement for the affected Network Element, Combination or Local Service. AT&T may obtain an alternative Network Element, Combinations or Local Service from another vendor. AT&T shall choose the least costly Network Element, Combination or Local Service provided by such vendor that reasonably meets its needs, shall subscribe to such Network Element, Combinations or Local Services for the minimum commercially available period and shall move all affected traffic to the newly installed, repaired or restored Network Element, Combinations or Local Services as

soon as possible after the end of such period. BellSouth shall be fully responsible for all obligations and shall pay in full all charges associated with the cost of such replacement Network Element, Combinations or Local Services.

12.7 BellSouth and AT&T agree that remedies at law alone are inadequate to compensate AT&T for failures to meet the DMOQ requirements specified by this Agreement, failures to install or provision Network Elements, Combinations or Local Services in accordance with the Due Dates specified in this Agreement, or for failures to provide Customer Usage Data in accordance with this Agreement. AT&T shall have the right to seek injunctive relief and other equitable remedies (in addition to remedies provided in this Agreement, at law and through administrative process) to require BellSouth (1) to cause the Network Elements, Combinations or Local Services ordered by AT&T to meet the DMOQ requirements specified by this Agreement, (2) to install or provision the Network Elements, Combinations or Local Services ordered by AT&T within the Due Dates specific in this Agreement and (3) to provide Customer Usage Data in accordance with this Agreement.

13. **Customer Credit History**

AT&T and BellSouth 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.

Applicant's 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.

14. **Force Majeure**

14.1 Except as otherwise specifically provided in this Agreement (including by way of illustration circumstances where BellSouth 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, Disputes, 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. Force Majeure shall not include acts of any Governmental Authority relating to environmental, health or safety conditions at Work Locations. 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.

14.2 Notwithstanding Subsection 1, 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, materialpersons, 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, (ii) do not relate to environmental, health or safety conditions at Work Locations and, (iii) 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.

15. **Certain Federal, State and Local Taxes**

Any Federal, state or local excise, license, 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. Any such taxes shall be shown as separate items on applicable billing documents between the Parties. The Party so obligated to pay any such taxes 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 Party obligated to collect and remit taxes shall cooperate fully in any such contest by the other Party by providing records, testimony and such additional information or assistance as may reasonably be necessary to pursue the contest..

16. **Alternative Dispute Resolution**

16.1 All disputes, claims or disagreements (collectively "Disputes") arising under or related to this Agreement or the breach hereof shall be resolved in

accordance with the procedures set forth in Attachment 1, except: (i) disputes arising pursuant to Attachment 6, Connectivity Billing; and (ii) disputes or matters for which the Telecommunications Act of 1996 specifies a particular remedy or procedure 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 Section or 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.

17. **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 to the following (unless otherwise specifically required by this Agreement to be delivered to another representative or point of contact):

If to AT&T:

Pamela A. Nelson
Vendor Management
AT&T
1200 Peachtree St., N.E.
Atlanta, GA 30309

If to BellSouth: **[To be provided by BellSouth]**

Receiving Party's Name and 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) seven days' prior written notice to the other Party in compliance with this Section. Any notice or other communication shall be deemed given when received.

18. **Confidentiality and Proprietary Information**

18.1 For the purposes of this Agreement, "Confidential Information" means confidential or proprietary technical or business Information given by the Discloser to the Recipient. All information which is disclosed by one Party to the other in connection with this Agreement shall automatically be deemed proprietary to the Discloser and subject to this Agreement, unless otherwise confirmed in writing by the Discloser. In addition, by way of example and not limitation, 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 Federal Communications Commission, and Recorded Usage Data as described in Attachment 7, whether disclosed by AT&T to BellSouth or otherwise acquired by BellSouth in the course of the performance of this Agreement, shall be deemed Confidential Information of AT&T for all purposes under this Agreement.

18.2 For a period of (5) five 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 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. If the Recipient wishes to disclose the Discloser's Confidential Information to a third party agent or consultant, such disclosure must be mutually agreed to in writing by the Parties to this Agreement, and the agent or consultant must have executed a written agreement of non-disclosure and non-use comparable in scope to the terms of this Section.

18.3 The Recipient may make copies of Confidential Information only as reasonably necessary to perform its obligations under this Agreement. All such copies shall bear the same copyright and proprietary rights notices as are contained on the original.

18.4 The Recipient agrees to return all Confidential Information in tangible form received 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. 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.

18.5 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 BellSouth that are or may be required by the Act. Additionally, the Recipient may disclose Confidential Information if so required by law, a court, or governmental agency, so long as the Discloser has been notified of the requirement promptly after the Recipient becomes aware of the requirement. In all cases, the Recipient must undertake all lawful measures to avoid disclosing such information until Discloser has had reasonable time to seek and comply with a protective order that covers the Confidential Information to be disclosed.

18.6 Each arty's obligations to safeguard Confidential Information disclosed prior to expiration or termination of this Agreement shall survive such expiration or termination.

18.7 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.

18.8 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.

19. **Branding [Subject to Negotiation]**

The Parties agree that the services offered by AT&T that incorporate Local Services, Network Elements or Combinations made available to AT&T pursuant to this Agreement, shall at AT&T's sole discretion, be branded exclusively as AT&T services, or otherwise, as AT&T shall determine. AT&T shall provide the exclusive interface to AT&T Customers, except as AT&T shall otherwise specify. In those instances where AT&T requires BellSouth personnel or systems to interface with AT&T Customers, such personnel shall identify themselves as representing AT&T, and shall not identify themselves as representing BellSouth. All forms, business cards or other business

materials furnished by BellSouth to AT&T Customers shall be subject to AT&T's prior review and approval, and shall bear no corporate name, logo, trademark or tradesman other than AT&T's or such other brand as AT&T shall determine. In no event shall BellSouth, acting on behalf of AT&T pursuant to this Agreement, provide information to AT&T local service customers about BellSouth, products or services. BellSouth agrees to provide for AT&T's review and approval the methods and procedures, training and approaches, to be used by BellSouth to assure that BellSouth meets AT&T's branding requirement in sufficient time for AT&T to review and the parties to approve them by August 1, 1996. For installation and repair services, AT&T agrees to provide BellSouth with branded material at no charge for use by BellSouth on an interim basis. BellSouth will notify AT&T of material supply exhaust in sufficient time that material will always be available.

20. **Directory Listings Requirements**

20.1 BellSouth shall make available to AT&T, for AT&T Customers, non-discriminatory access to its telephone number and address directory listings ("Directory Listings"), under the below terms and conditions. In no event shall AT&T Customers receive Directory Listings that are at less favorable rates, terms or conditions, than the rates, terms or conditions that BellSouth provides its Customers.

20.1.1 BellSouth shall provide to AT&T Customers, at no charge, the same White Pages basic listing(s) that BellSouth provides its customers. 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 one White Pages basic listing. BellSouth shall permit AT&T Customers the option of not having a published White Pages listing(s). Where BellSouth offers free Yellow Pages basic listings to business customers, BellSouth shall provide, at no charge to AT&T, Yellow Pages basic listing(s) for AT&T business customers.

20.1.2 BellSouth will require its wholly owned subsidiary, BellSouth Advertising and Publishing Corporation ("BAPCO") to provide and publish directory listing in accordance with the agreement attached hereto as Attachment 13. AT&T will sell enhanced White and Yellow Pages listings to AT&T Customers pursuant to said agreement between the parties. BellSouth shall provide, at the rates set forth in Part IV of this Agreement, the Enhanced White Page Listings and Enhanced Yellow Pages Listings for AT&T to offer for resale.

20.1.3 BellSouth shall include in its master subscriber system database all Subscriber List Information for AT&T Customers. Yellow Pages Advertising will be sold and billed to AT&T customers pursuant to Attachment 13, provided however, that AT&T will assume all billing for AT&T customers for Yellow Pages Advertising by **[date to be negotiated].**

21. **Subscriber List Information**

21.1 BellSouth 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 BellSouth'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 the BellSouth provides its own Subscriber List information to itself or 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.

21.2 BellSouth shall provide Subscriber List Information that includes AT&T Customers to third parties, as required by the Act, on the same terms and conditions and at the same rates that BellSouth provides its own Subscriber List Information to third parties. AT&T shall receive its pro-rata share of any amounts paid by third parties to BellSouth for such Subscriber List Information. AT&T's pro-rata share shall be calculated based on the proportionate share of AT&T Customers to the total number of customers included in the Subscriber List Information.

22. **Miscellaneous**

22.1 **Delegation or Assignment** - BellSouth may not assign any of its rights or delegate any of its obligations under this Agreement without the prior written consent of AT&T which will not be unreasonably withheld. Notwithstanding the foregoing, BellSouth may assign its rights and benefits and delegate its duties and obligations under this Agreement without the consent of AT&T to a 100 percent owned affiliate company of BellSouth, provided that the performance of any such assignee is guaranteed by the assignor. Any prohibited assignment or delegations shall be null and void.

22.2 **Subcontracting** - BellSouth may not subcontract the performance of any obligation under this Agreement without the prior written consent of AT&T, which shall not be unreasonably withheld. If any obligation is performed by a subcontractor or affiliate, BellSouth nevertheless shall remain fully responsible for the performance of this Agreement in accordance with its terms, and BellSouth shall be solely responsible for payments due its subcontractors or affiliates. No contract, subcontract or other agreement entered into by either Party with any third Party affiliate in connection with the provision of Local Services, Network Elements, or Combinations 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 or affiliate shall be deemed a third party beneficiary for any purposes under this Agreement.

22.3 **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.

22.4 **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.

22.5 **Referenced Documents** - Whenever any provision of this Agreement refers to a technical reference, technical publication, AT&T Practice, BellSouth 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, 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, BellSouth 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.

22.6 **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 of Georgia other than as to conflicts of laws, 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 Atlanta, Georgia, and waive any objections to a Georgia venue.

22.7 **Publicity and Advertising** - 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.

22.8 **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 AT&T does not waive any right granted to it pursuant to the Act.

22.9 **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.

22.10 **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.

22.11 **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.

22.12 **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.

22.13 **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.

Part I: Local Services Resale

23. **Telecommunications Services Provided for Resale**

23.1 At the request of AT&T, and pursuant to the requirements of the Act, BellSouth will make available to AT&T for unrestricted resale (see Section 24.3) any Telecommunications Service that BellSouth currently provides, or may offer hereafter. BellSouth shall also provide Support Functions and Service Functions, as set forth in Sections 27 and 28 of this Part. The Telecommunications Services, Service Functions and Support Functions provided by BellSouth to AT&T pursuant to this Agreement are collectively referred to as "Local Service."

23.2 This Part describes several services which BellSouth shall make available to AT&T for resale pursuant to this Agreement. This list of services is neither all inclusive nor exclusive. All Telecommunications Services of BellSouth 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.

23.2.1 **Features and Functions Subject to Resale**

BellSouth agrees to make available for resale all features and functions available in connection with Telecommunications Services, including but not limited to the following:

Dial tone and ring
Capability for either dial pulse or touch tone recognition
Capability to complete calls to any location
Same extended local calling area
1+ IntraLATA toll calling
PIC 1+ service
CIC dialing (10 XXXX)
Same access to vertical features and functions
Call detail recording capability required for end user billing
Flat and Measured Service
International Calling
911, 500, 700, 800, 888, 900, 976
Ringing
Repeat dial capability
Multi-line hunting
PBX trunks and DID service

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23.3 BellSouth will provide AT&T with at least the capability to provide an AT&T customer the same experience as BellSouth provides its own customers with respect to all Local Services. The capability provided to AT&T by BellSouth shall be in accordance with standards or other measurements that are at least equal to the highest level that BellSouth provides or is required to provide by law or its own internal procedures.

24. General Terms and Conditions for Resale

24.1 Primary Local Exchange Carrier Selection

BellSouth shall apply the principles set forth in Section 64.1100 of the Federal Communications Commission Rules, 47 C.F.R. §64.1100, to the process for end-user selection of a primary local exchange carrier. BellSouth shall not require a disconnect order from the customer, another carrier, or another entity, in order to process an AT&T order for Local Service for a customer.

24.2 Pricing

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

24.3 No Restrictions on Resale

AT&T may resell to any and all classes of end-users Telecommunications Services obtained from BellSouth under this Agreement, except for Lifeline Assistance and Link-Up services which AT&T may only resell to those customers who are eligible for such services. BellSouth will not prohibit, nor impose unreasonable or discriminatory conditions or limitations on the resale of its Telecommunications Services. BellSouth agrees to remove all tariff restrictions which prohibit or limit the aggregation and resale of any such Telecommunication Services.

24.3.1 Dialing Parity; Number Portability

24.3.1.1 BellSouth shall ensure that all AT&T Customers experience the same dialing parity as similarly-situated customers of BellSouth services, 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 BellSouth customer; (ii) 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 BellSouth customer; and (iii) the AT&T Customer may retain its local telephone number. BellSouth shall provide Interim Number Portability as of the Effective Date. Interim Number Portability shall include: Remote Call

Forwarding (RCF), Route Indexing (RI), and Local Exchange Routing Guide ("LERG") reassignment. In addition to providing RCF, BellSouth agrees to provide RI or LERG Reassignment in every local serving office. BellSouth also shall provide Permanent Number Portability in accordance with FCC or State Commission requirements.

24.3.2 **Changes in Retail Service**

24.3.2.1 BellSouth will notify AT&T of any changes in the terms and conditions under which it offers Telecommunications Services to subscribers who are not Telecommunications Service providers or carriers, including, but not limited to, the introduction or discontinuance of any features, functions, services or promotions, at least forty-five (45) days prior to the effective date of such change, or concurrent with BellSouth's internal notification process for such change, whichever is earlier.

24.3.2.2 BellSouth agrees to put in place an electronic system to provide for notice of proposed price changes for any Telecommunications Service to AT&T no later than thirty days before they are proposed to become effective. The process will be approved by AT&T, and will be in place no later than October 1, 1996.

24.3.2.3 BellSouth agrees to put in place an electronic system to notify AT&T in accordance with industry standards, but in no event less than six months for operational changes and twelve months for technology changes that are related to Local Services.

25. Requirements for Specific Services

25.1 **CENTREX Requirements [Subject to Negotiation]**

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

25.1.1.1 All features and functions of CENTREX Service, whether offered under tariff or otherwise, shall be available to AT&T for resale, without any geographic or customer class restrictions.

25.1.1.2 BellSouth shall provide to AT&T a list of all CENTREX features and functions offered by BellSouth within ten (10) days of the Effective Date, and shall provide updates to said list as required by Section 24.3.2.

25.1.1.3 All service levels and features of CENTREX Service provided by BellSouth for resale by AT&T shall meet the service parity requirements set forth in this Part.

25.1.1.4 AT&T may aggregate the CENTREX local exchange and IntraLATA traffic usage of AT&T Customers to qualify for volume discounts on the basis of such aggregated usage.

25.1.1.5 AT&T may aggregate multiple AT&T Customers on dedicated access facilities. AT&T may require that BellSouth suppress the need for AT&T Customers to dial "9" when placing calls outside the CENTREX System.

25.1.1.6 AT&T may use remote call forwarding in conjunction with CENTREX Service to provide service to AT&T Local Service Customers residing outside of the geographic territory in which BellSouth provides local exchange service.

25.1.1.7 AT&T may purchase any and all levels of CENTREX Service for resale, without restriction on the minimum or maximum number of lines that may be purchased for any one level of service.

25.1.1.8 BellSouth shall make available to AT&T for resale, at no additional charge, intercom calling among all AT&T Customers who utilize resold CENTREX Service.

25.1.1.9 AT&T may utilize Automatic Route Selection ("ARS") to provision access.

25.2 CLASS and Custom Features Requirements

AT&T may purchase the entire set of CLASS 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. BellSouth shall provide to AT&T a list of all such CLASS and Custom features and functions within ten (10) days of the Effective Date and shall provide updates to such list when new features and functions become available.

25.3 Voluntary Federal and State Customer Financial Assistance Programs

Local Services provided to low-income subscribers, pursuant to requirements established by the appropriate state regulatory body, include programs such as Voluntary Federal Customer Financial Assistance Program and Link-Up America ("Voluntary Federal Customer Financial Assistance Programs"). When a BellSouth customer eligible for the Voluntary Federal Customer Financial Assistance Program or other similar state programs chooses to obtain Local Service from AT&T, BellSouth shall forward all information

regarding such customer's eligibility to participate in such programs to AT&T, in electronic format in accordance with the procedures set forth herein.

25.4 **E911/911 Services**

25.5 **E911/911 Services [Subject to Negotiation]**

BellSouth shall provide access to E911/911 in the same manner that it is provided to BellSouth customers. BellSouth will enable AT&T customers to have E911/911 call routing to the appropriate Public Safety Answering Point (PSAP). BellSouth shall provide and validate AT&T Customer information to the PSAP. BellSouth 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/Database Management System) used to support E911/911 services.

25.5.1 AT&T agrees that BellSouth need not offer E911/911 services for resale to government agencies so long as BellSouth provides AT&T the necessary unbundled network elements in order for AT&T to provide E911/911 services to government agencies no later than January 1, 1997.

25.5.2 **Telephone Relay Service**

25.5.3 Where BellSouth 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"), BellSouth 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 BellSouth maintains a record of customers who qualify under any applicable law for Telephone Relay Service, BellSouth shall make such data available to AT&T as it pertains to AT&T Customers.

25.6 **Obsolete/Grandfathered Services Subject to Negotiation]**

25.6.1 BellSouth shall offer for resale to AT&T all obsolete/grandfathered services

25.6.2 For purposes of this Agreement, an obsolete/grandfathered service is a service that BellSouth offers to existing retail customers but not to new subscribers.

25.6.3 After the Effective Date of this Agreement, AT&T shall have the right to review and approve any request for grandfathering any service to be filed by BellSouth at any Public Utility Commission.

25.7 **Lifeline/Link-Up Service [Subject to Negotiation]**

25.7.1 BellSouth shall offer for resale Lifeline and Link-Up Service.

25.8 **N11 Service [Subject to Negotiation]**

25.8.1 BellSouth agrees not to offer any new N11 services for twelve (12) months after the Effective Date of this Agreement unless BellSouth makes any such service available for resale.

25.8.2 AT&T will not have the right to sell any N11 service, other than 411, 611 or 911 services, existing as of the Effective Date of this Agreement.

25.9 Contract Service Arrangements, Special Arrangements, and Promotions [Subject to Negotiation]

25.9.1 BellSouth shall offer for resale all Contract Service Arrangements, Special Arrangements, and Promotions on a "switch as requested" (transfer of contract) basis.

25.10 State Specific Discount Plans and Services [Subject to Negotiation]

25.10.1 BellSouth shall offer for resale all State Specific Discount Plans or Service.

25.11 **Nonrecurring Services**

25.11.1 Except as provided in Part IV, BellSouth shall offer for resale all non-recurring services.

25.11.2 Inside Wire Maintenance Service

25.11.3 BellSouth shall offer for resale inside wire maintenance service.

25.12 Pay Phone Service

BellSouth shall offer for resale, at a minimum, the following: Coin Line, COCOT Line Coin, and COCOT Line Coinless features:

Billed Number Screening
Ability to "freeze" PIC selection
One bill per line
Point of demarcation at the Network Interface location
Detailed billing showing all 1+ traffic on paper, diskette or electronic format
Wire Maintenance option
Touchtone service
Option for listed or non-listed numbers

Access to 911 service
One directory per line

25.12.1 **BellSouth shall offer for resale, at a minimum, the following Coin Line features:**

Access to all CO intelligence required to perform answer detection, coin collection, coin return, and disconnect.
Answer Detection
Option to block all 1+ calls to international destinations
IntraLATA Call Timing
Option of one way or two way service on line
Flat Rate Service
Originating line screening

[The following Coin Line items are subject to continued negotiation.

AT&T rate tables for local and intraLATA service
Option of measured service
Ability to block any 1+ service that cannot be rated by the coin circuits/TSPS/OSPS
Protect against clip on fraud
Protect against blue box fraud]

25.12.2 BellSouth shall offer for resale, at a minimum, the following COCOT Line Coin and COCOT Line Coinless features:

Originating line screening
Two way service option
Flat rate service based on rate groups

[The following COCOT Line Coin and COCOT Line Coinless items are subject to continued negotiation:

Option of one way service on the line
Option of measured service
Ability to keep existing serving telephone numbers if cutover to AT&T resale line Incoming/outgoing screening]

25.12.3 BellSouth shall offer for resale, at a minimum, the following COCOT Line Coin feature:

Blocking for 1+ international, 10XXXX1+ international, 101XXXX1+ international, 1+900, N11, 976

[The following COCOT Line Coin items are subject to continued negotiation:

Option to block all 1-700 and 1-500 calls
Line side supervision option]

25.12.4 BellSouth shall offer for resale, at a minimum, the following COCOT Line Coinless feature:

Blocking for 1+ international, 10XXXX1+ international, 101XXXX1+ international, 1+900, N11, 976, 7 digit local, 1+DDD

25.12.5 BellSouth shall offer for resale, at a minimum, the following SemiPublic Coin features:

Ability to keep existing serving telephone numbers if cutover to AT&T
Touchtone Service
Option for listed, nonlisted, or non published numbers
Provision 911 service
Access to ANI information
Access to all CO intelligence
Ability to keep existing serving telephone numbers if cutover to AT&T required to perform answer supervision, collect and refund
Far end disconnect recognition
Call timing
PIC protection for all 1+local, interLATA, and intraLATA traffic
Same call restrictions as available on BellSouth phones for interLATA, international, intraLATA, and local calling
One bill per line
Detailed billing showing all 1+ traffic in paper or electronic format
Option to have enclosure installed with set
One directory per line installed
Install the station to at least BellSouth standards

[The following SemiPublic Coin items are subject to continued negotiation:

Option to block all 1+ international calls
Option of one way or two way service
Wire Maintenance option
Ability to block any 1+ service that cannot be rated by the coin circuits/TSPS/OSPS
AT&T rate tables for local and intraLATA service
Option to have BellSouth techs collect, count, and deposit vault contents on behalf of AT&T
Monitor vault contents for slugs and spurious non US

currency or theft and notify AT&T of discrepancies
Station or enclosure equipment should only bear the name/brand designated by AT&T on the order form
Protect against clip on fraud
Protect against red box fraud
Protect against blue box fraud
Provide option for use of "bright" station technology including debit cards
Provide revenue, maintenance, collection reports as specified by AT&T on order form on a periodic basis in paper or electronic format]

[The following Coin Line, SemiPublic Coin, COCOT Line Coin, and COCOT Line Coinless, items are subject to continued negotiation for all service types:

Blocking of inbound international calls
Point of demarcation at the set location
Provide service restoration per AT&T's DMOQs
Service outage transfers to AT&T help center
Special screen codes unique to AT&T and/or its customers
Single point of Contact for bills and orders dedicated to Public
Access to AT&T Directory Assistance
Access to AT&T's Network Access Interrupt
Access to ANI Information
Use AT&T branded invoice
Provide all information requested to ensure AT&T can bill for access line
Provide all information requested to ensure AT&T can bill for usage on the line
All calls originating from stations serviced by these lines should be routed to AT&T lines, except where designated
Provide the same monitoring and diagnostic routines on the line as BellSouth would on its own facilities
Provide installation intervals per AT&T DMOQs
Ordering per AT&T DMOQs
Call Transfer per AT&T DMOQs
Billing per AT&T DMOQs
PIC per AT&T DMOQs]

25.13 Voice Mail Service

25.13.1 Bell South shall provide the SMDI-E, Station Message Desk Interface-Enhanced, where available, or SMDI, Station Message Desk Interface where SMDI-E is not available, feature capability allowing for Voice Mail Services.

BellSouth shall provide to the end user the MWI (Message Waiting Indicator) stutter dialtone and message waiting light feature capabilities. BellSouth shall provide CF-B/DA (Call Forward on Busy/Don't Answer), CF/B (Call Forward on Busy), and CF/DA (Call Forward Don't Answer) feature capabilities allowing for Voice Mail services.

25.14 Hospitality Service

25.14.1 BellSouth shall provide all blocking, screening, and all other applicable functions available for hospitality lines.

25.15 Blocking Service

25.15.1 BellSouth shall provide blocking of 700, 900, and 976 services upon request, including bill to third party and collect calls, from AT&T on a line, trunk, or individual service basis.

26. **Advanced Intelligent Network [Subject to Negotiation]**

26.1 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 BellSouth to AT&T for resale shall meet the following requirements:

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

26.1.2 BellSouth shall provide full functionality access to AT&T on behalf of AT&T Customers, including the Service Control Point Database and Intelligent Functions;

26.1.3 All service levels, features and function components of AIN provided by BellSouth shall meet the service parity requirements set forth in this Part; and

26.1.4 AT&T may purchase any and all levels of AIN service for resale, without restriction on the minimum or maximum number of lines or features that may be purchased for any one level of service.

27. **Support Functions**

Routing to Directory Assistance, Operator and Repair Services [Subject to Negotiation]

27.1.1 BellSouth shall make available to AT&T the ability to route:

27.1.2 Local Directory Assistance calls (411, (NPA) 555-1212) dialed by AT&T Customers directly to the AT&T Directory Assistance Services platform.

Local Operator Services calls (0+, 0-) dialed by AT&T Customers directly to the AT&T Local Operator Services platform. Such traffic shall be routed over trunk groups between BellSouth end offices and the AT&T Local Operator Services Platform, using standard Operator Services dialing protocols of 0+ or 0.

27.1.3 Repair calls (e.g., 611) dialed by AT&T Customers directly to the AT&T repair center.

27.1.4 All direct routing capabilities described herein shall permit AT&T Customers to dial the same telephone numbers for AT&T Directory Assistance, Local Operator Service and Repair that similarly situated BellSouth customers dial for reaching equivalent BellSouth services.

27.1.5 BellSouth, no later than five (5) days after the Effective Date, shall provide to AT&T, the emergency public agency (e.g., police, fire, ambulance) telephone numbers linked to each NPA-NXX. Such data will be transmitted via the Electronic Interface described in Section 27.1 of this Part. BellSouth will electronically transmit to AT&T, in a timely manner, all changes, alterations, modifications and updates to such data base.

27.2 **Interim Measures**

27.2.1 Until such time as BellSouth routes calls to the AT&T Directory Assistance platform, BellSouth shall provide Directory Assistance to AT&T's customers branded to AT&T pursuant to Section 19.

Where BellSouth is the provider of Directory Assistance service, BellSouth agrees to provide AT&T customers with the same Directory Assistance available to BellSouth customers branded as required by Section 19. Additionally, BellSouth warrants that such service will provide the following minimum capabilities to AT&T's customers:

(1) Two customer listings and/or addresses per AT&T customer call.
(2) Name and address to AT&T customers upon request, except for unlisted numbers, in the same states where such information is provided to BellSouth customers (AL,MS,LA,KY).

(3) Upon request, call completion to the requested number for local and intraLATA toll calls, where this service is available.
(4) Populate the listing database in the same manner and in the same time frame as if the customer was a BellSouth customer.
(5) Any information provided by a Directory Assistance Automatic Response Unit (ARU) will be repeated the same number of times for AT&T customers as for BellSouth's customers.
(6) Service levels will comply with Public Service Commission requirements for:
a) number of rings to answer
b) average work time
c) disaster recovery options
(7) Intercept service for customers moving service will include:
a) referral to new number, either 7 or 10 digits
b) repeat of the new number twice on the referral announcement
c) repeat of the new recording twice.

27.2.2 Until such time as BellSouth routes calls to the AT&T Local Operator Services platform, BellSouth shall provide Operator Services to AT&T's customers. BellSouth agrees to provide AT&T performance metrics for this service that include a) number of rings to answer, b) average work time, c) disaster recovery.

Where BellSouth is the provider for Local Operator Service, (0+,0-), BellSouth agrees to provide AT&T customers the same Operator Services available to BellSouth customers, branded as required by Section 19. Additionally, BellSouth warrants that such service will provide the following minimum capabilities to AT&T customers:

(1) Instant credit on calls, as provided to BellSouth customers.
(2) Routing of calls to AT&T when requested via existing Operator Transfer Service (OTS), at no charge.
(3) Busy Line Verification/Emergency Line Interrupt (BLV/ELI) services.
(4) Emergency call handling.
(5) Notification of the length of call.
(6) Caller assistance for the disabled in the same manner as provided to BellSouth customers.
(7) Handling of collect calls: person to person and/or station to station.

27.3 **Busy Line Verification and Emergency Line Interrupt**

BellSouth shall permit AT&T to connect its Local Operator Service to BellSouth's Busy Line Verification and Emergency Line Interrupt ("BLV/ELI") systems and databases to enable AT&T to perform BLV/ELI services.

BellSouth will engineer its BLV/ELI facilities to accommodate the anticipated volume of BLV/ELI requests during the Busy Hour. AT&T may, from time to time, provide its anticipated volume of BLV/ELI requests to BellSouth. In those instances when the BLV/ELI systems and databases become unavailable, BellSouth shall promptly inform AT&T.

27.4 **Access to the Line Information Database**

BellSouth 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 Line Information Database ("LIDB").

27.5 **Telephone Line Number Calling Cards**

Effective as of the date of an end-user's subscription to AT&T Service, BellSouth will terminate its existing telephone line number - based calling cards and remove any BellSouth-assigned Telephone Line Calling Card Number (including area code) ("TLN") from the LIDB. AT&T may issue a new telephone calling card to such customer, utilizing the same TLN, and AT&T shall have the right to enter such TLN in LIDB for calling card validation purposes.

28. **Service Functions**

28.1 **Electronic Interface**

BellSouth shall provide a real-time electronic interface ("EI") for transferring and receiving Service Orders and Provisioning data and materials (e.g., access to Street Address Guide ("SAG") and Telephone Number Assignment database). This interface shall be administered through a gateway that will serve as a single point of contact for the transmission of such data from AT&T to BellSouth, and from BellSouth to AT&T. The requirements and implementation of such a data transfer system shall be negotiated in good faith by the parties and be specified in a written agreement between AT&T and BellSouth that will be completed expeditiously after the Effective Date of this Agreement. AT&T and BellSouth agree that the Electronic Communications gateway described above is to be provided as soon as practicable, but in no event later than the dates specified below. Until such time as a gateway is established, the EI to be used shall be the same EI as is currently used by BellSouth, as may be modified by agreement of the parties during the interim period. AT&T and BellSouth have agreed on interim solutions described below to address the Pre-ordering, Ordering and Provisioning interfaces. BellSouth warrants that such interim solutions shall provide AT&T customers with the same level of service available to BellSouth customers.

Pre-Ordering

1. BellSouth will provide AT&T access to BellSouth's Regional Street Address Guide (RSAG) via dial-up to be replaced with LAN to LAN access no later than September 15,1996.

2. BellSouth will provide AT&T access to BellSouth's Products and Services Inventory Management System (P/SIMS) data via Network Data Mover file transfer. BellSouth shall update this data at least once a week from BellSouth's P/SIMS database. The data shall be available at all times and AT&T may retrieve the data at any time.

3. BellSouth will supply AT&T with Interval Guide Job Aids to be used to determine service installation dates. BellSouth will implement an electronic interface to its Due Date Support Application (DSAP) no later than December 31, 1996.

4. BellSouth will reserve up to 100 telephone numbers per NPA-NXX at AT&T's request, for AT&T's sole use. BellSouth will provide additional number at AT&T's request in order that AT&T have sufficient numbers available to meet expected needs. The telephone number reservations made in this manner are valid for AT&T's assignment for (90) ninety days from the reservation date. BellSouth will make the telephone number reservations available to AT&T via electronic file no later than September 15, 1996. AT&T and BellSouth agree to implement an electronic interface to improve this process no later than: December 31, 1996.

5. BellSouth Local Carrier Service Center (LCSC) will assign vanity numbers and blocks of numbers for use with complex services including, but not limited to, DID and Hunting arrangements, as requested by AT&T, and documented in Work Center Interface agreements.

Ordering

BellSouth agrees to develop, and AT&T agrees to cooperate in the development of, a mutually acceptable Electronic Data Interchange (EDI) for ordering Local Services, Unbundled Elements and Combinations. The ordering process and related transactions, (i.e., order, confirmation, firm order commitments, supplements and completions) shall be via the EDI interface.

BellSouth agrees to implement the EDI interface to support processes for Local Services for residence POTS and features, business POTS and features and PBX trunks with Direct Inward Dialing by September 1, 1996. By December 15, 1996, all Local Services shall be available for ordering via EDI interface. By March 31, 1997, an interactive direct order entry capability will be implemented for ordering all Local Services, Unbundled Elements and Combinations. Further development of the interface will be documented in a joint implementation agreement currently under negotiation.

28.2 **Work Order Processes**

28.2.1 BellSouth shall ensure that all work order processes used to provision Local Service to AT&T for resale meet the service parity requirements set forth in this Part.

28.2.2 Not later than September 1, 1996, BellSouth and AT&T shall develop mutually agreed-upon escalation and expedite procedures to be employed at any point in the Service Ordering, Provisioning, Maintenance, Billing and Customer Usage Data transfer processes to facilitate rapid and timely resolution of disputes.

These procedures will be maintained in the Work Center Interface Agreements.

28.3 **Point of Contact for the AT&T Customer**

28.3.1 Except as otherwise provided in this Agreement, AT&T shall be the single and sole point of contact for all AT&T Customers.

28.3.2 BellSouth shall refer all questions regarding any AT&T service or product directly to AT&T at a telephone number specified by AT&T.

28.3.3 BellSouth shall ensure that all BellSouth representatives who receive inquiries regarding AT&T services: (i) provide such numbers to callers who inquire about AT&T services or products; and (ii) do not in any way disparage or discriminate against AT&T, or its products or services; and (iii) do not provide information about BellSouth products or services.

28.4 **Single Point of Contact**

Each party shall provide the other party with a single point of contact ("SPOC") for all inquiries regarding the implementation of this Part. Each party shall accept all inquiries from the other party and provide timely responses.

BellSouth Contact numbers will be kept current in the Work Center Interface Agreements.

28.5 **Service Order**

To facilitate the ordering of new service for resale or changes to such service to an AT&T Customer ("Service Order"), BellSouth shall provide AT&T's representative with real-time access (as described in Section 28.1) to BellSouth customer information to enable the AT&T representative to perform the following tasks:

BellSouth will provide AT&T real-time access to the customer profile no later than March 31, 1997. Until real-time access is available via electronic interface, BellSouth agrees that AT&T can obtain customer profile information via telephone conference. Methods and procedures for the interim interface will be defined in a Work Center Interface agreement;

BellSouth will provide AT&T with real-time access to information on all features and services available, including new services, trial offers and promotions. If real time access is not available via electronic interface, BellSouth agrees to make available to AT&T an electronic file with feature and service information in each BellSouth central office;

28.5.1 BellSouth will provide AT&T with real-time access to order entry no later than March 31, 1997. Until real-time access is available via electronic interface, BellSouth agrees to establish the Local Carrier Service Center (LCSC) as the SPOC for order entry. Orders will be received at the LCSC via the EDI interface. BellSouth agrees to enter the service order and provide Firm Order Confirmation (FOC) within 24 hours of receipt of correct Local Service Request.

28.5.2 BellSouth will provide AT&T with real-time access to telephone number reservations no later than December 31, 1996. Until real-time access is available via electronic interface, BellSouth agrees to provide AT&T with a ready supply of telephone numbers. The process is described in Section 28.1 of this document.

28.5.3 BellSouth will provide AT&T with real-time ability to establish directory listings no later than March 31, 1997. Until real-time access is available via electronic interface, BellSouth agrees to establish the appropriate directory listing for AT&T end-users via the LSR and interim service ordering process. AT&T will provide the appropriate directory listing information on the LSR.

28.5.4 BellSouth will provide AT&T with the appropriate information and training materials (job aids) to assist AT&T work centers to determine whether a

service call will be required on a service installation. These job aids are to be the same information available to the BellSouth employees.

28.5.5 BellSouth will provide AT&T with real-time ability to schedule dispatch and installation no later than: December 31, 1996. Until real-time access is available via electronic communications, BellSouth agrees to provide AT&T with interval guides for BellSouth services;

28.5.6 BellSouth will provide AT&T with real-time ability to order local intraLATA toll service and enter AT&T Customer's choice of primary interexchange carrier on a single, unified order no later that March 31, 1997.

28.5.7 BellSouth will suspend, terminate or restore service to an AT&T Customer at AT&T's request.

28.6 **Provisioning**

28.6.1 After receipt and acceptance of a Service Order, BellSouth shall provision such Service Order in accordance with the following Intervals and DMOQs:

28.6.1.1 Turn-up of Local Service where no installation of facilities is required:

Residence and Business: within twenty-four (24) hours of acceptance of Service Order

28.6.1.2 Turn-up of Local Service where installation of facilities is required:

Residence: within seventy-two (72) hours of acceptance of Service Order

28.6.1.3 Feature Changes (after service turn-up):

Feature changes received by BellSouth before 12:00 P.M. will be done on the day of receipt. If request is received after 12:00 P.M., the work will be done on the next day.

28.6.1.4 Service Disconnects:

Residence: Within twenty-four (24) hours after acceptance of Service Order
Business: Within four (4) hours after acceptance of Service Order if only software change is required.
Business: Within twenty-four (24) hours after acceptance of Service Order if central office change or customer premise visit is required.

28.6.1.5 Provisioning functions performed by BellSouth will meet the following DMOQs:

Installation Commitment

Residence: >99% met
Business: >99.5% met

Installation Provisioned Correctly in less than five (5) days
Residence: >99% met
Business: >99.5% met

Missed Appointments
Residence: <1%
Business: 0%

28.6.2 BellSouth shall provide AT&T with service status notices, within mutually agreed-upon intervals. Such status notices shall include the following:

28.6.2.1 Firm order confirmation, including service availability date and information regarding the need for a service dispatch for installation.

28.6.3 BellSouth will provide AT&T with real-time notice of service installation no later than March 31, 1997. Until real-time electronic interface is available, BellSouth agrees to provide AT&T with completion information on a daily basis for all types of service orders. BellSouth will utilize the EDI interface to transmit that data to AT&T.

If an installation requires deviation from the service order in any manner, or if an AT&T customer requests a service change at the time of installation, BellSouth will call AT&T in advance of performing the installation for authorization. BellSouth will provide to AT&T at that time an estimate of additional labor hours and/or materials required for that installation. After installation is completed, BellSouth will immediately inform AT&T of actual labor hours and/or materials used.

28.6.4 BellSouth will provide AT&T with real-time information exchange for rejection/errors in Service Orders no later than March 31, 1997. Until real-time electronic interface is available, BellSouth agrees to notify AT&T via telephone of any rejection/errors on service orders within one hour of receipt. The process for that notification will be described further in the work center interface agreement between AT&T CNSC and BellSouth LCSC.

28.6.5 BellSouth will provide AT&T real-time access to status information on Service Orders no later than March 31, 1997. Until real-time electronic interface is available, BellSouth agrees that BellSouth's LCSC will immediately notify AT&T if a service appointment is in jeopardy of being missed.

28.6.6 BellSouth will provide AT&T with real-time information on charges associated with necessary construction no later than March 31, 1997. Until real-time electronic interface is available, BellSouth agrees that BellSouth's LCSC will immediately notify AT&T of any changes associated with necessary construction.

28.6.7 BellSouth will provide AT&T real-time access to status on service orders no later than March 31, 1997. Until such real-time access to status on Service Orders is available to AT&T, BellSouth agrees to provide proactive status at the following critical intervals: acknowledgment, firm order confirmation, and completion on service orders. AT&T may call the BellSouth LCSC for status upon request.

28.6.8 BellSouth will perform all pre-service testing on resold Local Services.

28.6.9 Where BellSouth provides installation, BellSouth shall notify AT&T immediately if an AT&T Customer requests a service change at the time of installation.

28.6.10 BellSouth shall provide provisioning support to AT&T twenty-four (24) hours a day, seven (7) days a week.

28.6.11 BellSouth shall provide training for all BellSouth employees who may communicate with AT&T Customers, during the provisioning process. Such training shall conform to AT&T's specifications and shall comply with the branding requirements of this Agreement.

28.6.12 BellSouth will provide AT&T with the capability to provide AT&T customers the same ordering, provisioning intervals, and level of service experiences as BellSouth provides to its own customers, in accordance with standards or other measurements that are at least equal to the highest level that BellSouth provides or is required to provide by law or its own internal procedures.

28.6.13 BellSouth will maintain and staff an account team to support AT&T's inquires concerning the ordering of local complex service and designed business services for local services resale. This team will provide information regarding all services, features and functions available, know the forms and additional information required beyond the standard local service request, assist AT&T in preparation of such orders, and coordinate within BellSouth to insure parity with the end users of BellSouth's retail services.

28.6.14 BellSouth will provide AT&T with the information AT&T will need to certify customers as exempt from charges, or eligible for reduced charges associated with the provisioning of new services, including but not limited to handicapped individuals, and certain governmental bodies and public institutions. BellSouth, when notified that an order for new service is exempt in some fashion, will not bill AT&T.

28.6.15 BellSouth will provide the same intercept treatment and transfer of service announcements to AT&T's customers as BellSouth provides to its own end users without any branding.

28.6.16 BellSouth will provide AT&T with appropriate notification of all area transfers with line level detail 120 days before service transfer, and will also notify AT&T within 120 days before such change of any LATA boundary changes.

28.6.17 BellSouth agrees to develop with AT&T cooperation, mutually acceptable interface agreements between work centers regarding the exchange of information and process expectations.

28.6.18 BellSouth will suspend AT&T local customers' service upon AT&T's request via the receipt of a Local Service Request. The service will remain suspended until such time as AT&T submits an Local Service Request requesting BellSouth to reactivate.

28.6.19 BellSouth will provide AT&T's end users the same call blocking options available to BellSouth's own end users.

28.6.20 BellSouth will work cooperatively with AT&T in practices and procedures regarding Law Enforcement and service annoyance call handling. To the extent that circuit-specific engineering is required for resold services, BellSouth will provide the same level of engineering support as BellSouth provides for its comparable retail services.

28.6.21 BellSouth will provide information about the certification process for the provisioning of LifeLine, Linkup and other similar services.

28.6.22 BellSouth will provide a daily electronic listing of AT&T customers who change their local carrier. The process is described as OUTPLOC (See reference in Local Account Maintenance Requirements of Attachment 7.)

28.7 **Maintenance**

Maintenance shall be provided in accordance with the requirements and standards set forth in Attachment 5. Maintenance will be provided by BellSouth in accordance with the service parity requirements set forth in this Part.

28.8 **Provision of Customer Usage Data**

BellSouth shall provide the Customer Usage Data recorded by the BellSouth. Such data shall include complete AT&T Customer usage data for Local Service, including both local and intraLATA toll service (e.g., call detail for all services, including flat-rated and usage-sensitive features), in accordance with the terms and conditions set forth in Attachment 7.

28.9 **Service/Operation Readiness Testing**

28.9.1 In addition to testing described elsewhere in this Section, BellSouth shall test the systems used to perform the following functions at least ninety (90) days prior to commencement of BellSouth's provision of Local Service, in order to establish system readiness capabilities:

28.9.1.1 All interfaces between AT&T and BellSouth work centers for Service Order, Provisioning;

28.9.1.2 Maintenance, Billing and Customer Usage Data;

28.9.1.3 The process for BellSouth to provide customer profiles;

28.9.1.4 The installation scheduling process;

28.9.1.5 Network alarm reporting;

28.9.1.6 Telephone number assignment;

28.9.1.7 Procedures for communications and coordination between AT&T SPOC and BellSouth SPOC;

28.9.1.8 Procedures for transmission of Customer Usage Data; and

28.9.1.9 Procedures for transmitting bills to AT&T for Local Service; and

28.9.1.10 The process for wholesale billing for local service.

28.9.2 The functionalities identified above shall be tested in order to determine whether BellSouth performance meets the applicable service parity requirements, DMOQs and other performance standards set forth herein. BellSouth shall make available sufficient technical staff to perform such

testing. BellSouth technical staff shall be available to meet with AT&T as necessary to facilitate testing. BellSouth and AT&T shall mutually agree on the schedule for such testing.

28.9.3 At AT&T's request, BellSouth shall provide to AT&T any results of the testing performed pursuant to the terms of this Part. AT&T may review such results and may notify BellSouth of any failures to meet the requirements of this Agreement.

28.9.4 During the term of this Agreement, BellSouth shall participate in cooperative testing requested by AT&T whenever it is deemed necessary by AT&T to ensure service performance, reliability and customer serviceability.

28.10 **Billing For Local Service**

28.10.1 BellSouth shall bill AT&T for Local Service provided by BellSouth to AT&T pursuant to the terms of this Part, and in accordance with the terms and conditions for Connectivity Billing and Recording in Attachment 6.

28.10.2 BellSouth shall recognize AT&T as the customer of record for all Local Service and will send all notices, bills and other pertinent information directly to AT&T unless AT&T specifically requests otherwise.

PART II: UNBUNDLED NETWORK ELEMENTS

29. **Introduction**

This Part II sets forth the unbundled Network Elements that BellSouth agrees to offer to AT&T in accordance with its obligations under Section 251(c)(3) of the Act. The specific terms and conditions that apply to the unbundled Network Elements are described below and in the Network Elements Service Description, Attachment 2. The price for each Network Element is set forth in Part IV of this Agreement. Except as otherwise set forth in this Part II, BellSouth shall offer Network Elements to AT&T as of November 1, 1996.

30. **Unbundled Network Elements**

30.1 BellSouth shall offer Network Elements to AT&T on an unbundled basis on rates, terms and conditions that are just, reasonable, and non-discriminatory in accordance with the terms and conditions of this Agreement and the requirements of Section 251 and Section 252 of the Act.

30.2 BellSouth will permit AT&T to interconnect AT&T's facilities or facilities provided by AT&T or by third parties with each of BellSouth's unbundled Network Elements at any point designated by AT&T that is technically feasible.

30.3 AT&T, at its option, may designate any technically feasible network interface at a Served Premises, including without limitation, DS0, DS-1, DS-3, STS-1, and OC-n (where n equals 1 to 48) interfaces, and any other interface described in the applicable technical references.

30.4 AT&T may use one or more Network Elements to provide any feature, function, or service option that such Network Element is capable of providing or any feature, function, or service option that is described in the technical references identified herein, or as may otherwise be determined by AT&T.

30.5 BellSouth shall offer each Network Element individually and in combination with any other Network Element or Network Elements in order to permit AT&T to provide Telecommunications Services to its customers.

30.6 For each Network Element, BellSouth shall provide a demarcation point (e.g., an interconnection point at a Digital Signal Cross Connect or Light Guide Cross Connect panel or a Main Distribution Frame) and, if necessary, access to such demarcation point, which AT&T agrees is suitable. However, where BellSouth provides contiguous Network Elements to AT&T, BellSouth may provide the existing interconnections and no demarcation point shall exist between such contiguous Network Elements.

30.7 BellSouth shall not charge AT&T an interconnection fee or demand other consideration for directly interconnecting any Network Element or Combination to any other Network Element or Combination provided by BellSouth to AT&T if BellSouth directly interconnects same two Network Elements or Combinations in providing any service to its own customers or a BellSouth affiliate, including the use of intermediate devices, such as a digital signal cross connect panel, to perform such interconnection.

30.8 The total charge to AT&T to interconnect any Network Element or Combination to any other Network Element or Combination provided by BellSouth to AT&T if BellSouth does not directly interconnect the same two Network Elements or Combinations in providing any service to its own customers or a BellSouth affiliate (e.g., the interconnection required to connect the Loop Feeder to an ALEC's collocated equipment), shall be BellSouth's total service long-run incremental cost of providing the interconnection.

30.9 Subsections 1 through 11 below list the Network Elements that AT&T and BellSouth have identified as of the Effective Date of this Agreement. AT&T and BellSouth agree that the Network Elements identified in this Part II are not exclusive. Either party may identify additional or revised Network Elements as necessary to improve services to customers, to improve network or service efficiencies or to accommodate changing technologies, customer demand, or regulatory requirements. Upon the identification of a new or revised Network Element, the party so identifying the new or revised Network Element shall notify the other party of the existence of and the technical characteristics of the new or revised Network Element. If the parties do not agree on the existence of and the technical characteristics of the newly identified or revised Network Element, any issues that have not been resolved by the parties within thirty days of notification shall be submitted to the Dispute Resolution Procedures as set forth in this Agreement. Within thirty (30) days of AT&T and BellSouth agreeing on the technical characteristics of the new or revised Network Element, the parties will attempt to agree on the rates, terms and conditions that would apply to such Network Element and the effects, if any, on the price, performance or other terms and conditions of existing Network Elements. If the parties do not agree on rates, terms and conditions and other matters set forth herein, any issues that have not been resolved by the parties within thirty days shall be submitted to the Dispute Resolution Procedures as set forth in this Agreement. Additionally, if BellSouth provides any Network Element that is not identified in this Agreement, to itself, to its own customers, to a BellSouth affiliate or to any other entity, BellSouth will provide the same Network Element to AT&T on rates, terms and conditions no less favorable to AT&T than those provided to itself or to any other party. The Network Elements are described below. Additional descriptions and requirements for each Network Element are set forth in Attachment 2.

BellSouth shall provide a contiguous loop as of November 1, 1996. If BellSouth uses integrated Digital Loop Carrier (DLCs) systems to provide the local loop, BellSouth will make alternate arrangements to permit AT&T to order a contiguous unbundled local loop. These arrangements may, at BellSouth's option, include the following: provide AT&T with copper facilities that are acceptable to AT&T; deploy Virtual Remote Terminals; allow AT&T to purchase the entire integrated DLC; or convert integrated DLCs to non-integrated systems.

30.9.1 **"Loop Distribution"** is a Network Element that is composed of two distinct component parts: a Network Interface Device and Distribution Media. By no later than August 15, 1996, BellSouth shall provide AT&T with a proposal to develop the capacity to offer unbundled Loop Distribution. AT&T will respond to BellSouth's proposal by no later than October 1, 1996. If AT&T accepts BellSouth's proposal by November 1, 1996, BellSouth shall offer unbundled Loop Distribution as of October 1, 1997.

30.9.1.1 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. If AT&T requires a NID without other subloop elements, AT&T shall provide and BellSouth shall accept AT&T's certified grounding of BellSouth's Loop Distribution Facility when it is disconnected from the NID. **[Subject to Negotiation]**

30.9.1.2 **Distribution Media**

30.9.1.2.1 "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.

30.9.1.2.2 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 BellSouth offers is other than a copper facility.

30.9.2 **Loop Concentrator/Multiplexer**

30.9.2.1 The "Loop Concentrator/Multiplexer" is the Network Element that: (1) aggregates lower bit rate or bandwidth signals to higher bit rate or bandwidth signals (multiplexing); (2) disaggregates higher bit rate or bandwidth 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.

30.9.2.2 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. In cases where this Network Element is required on an integrated DLC, BellSouth will provide it by a universal DLC alternative.

30.9.2.3 By no later than August 15, 1996, BellSouth shall provide AT&T with a proposal to develop the capacity to offer unbundled Loop Concentrator/Multiplexer. AT&T will respond to BellSouth's proposal by no later than October 1, 1996. If AT&T accepts BellSouth's proposal by November 1, 1996, BellSouth shall offer unbundled Loop Concentrator/Multiplexer by October 1, 1997.

30.9.3 **Loop Feeder**

30.9.3.1 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. BellSouth shall provide AT&T physical access to the FDI, and the right to connect the Loop Feeder to the FDI.

30.9.3.2 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 BellSouth offers is other than a copper facility.

30.9.4 **Local Switching**

30.9.4.1 "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 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 BellSouth 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), Centrex, 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 Centrex capabilities.

30.9.4.2 Local Switching, including the ability to route to AT&T's transport facilities, dedicated facilities and systems, shall be unbundled from all other unbundled Network Elements, i.e., Operator Systems, Common Transport, and Dedicated Transport. In addition, BellSouth agrees to work with AT&T and other ALECs on a routing resource conservation program and file a capacity expansion program to relieve routing resource constraints for 95% of the market in each state by December 31, 1997. Local Switching includes Data Switching as described in Attachment 2.

30.9.5 **"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 separate and distinct from local switching. The Operator Systems, Network Element provides two types of functions: Operator Service functions and Directory Service functions, each of which are described below.

30.9.5.1 **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 Interrupt

(BLV/EI), Emergency Agency Call, Operator-assisted Directory Assistance, and Rate Quotes.

30.9.5.2 **Directory Service** provides local customer telephone number listings with the option to complete the call at the callers direction separate and distinct from local switching.

30.9.6 **"Common Transport"** is an interoffice transmission path between BellSouth Network Elements. Where BellSouth Network Elements are connected by intra-office wiring, such wiring is provided as a part of the Network Elements and is not Common Transport. BellSouth shall offer Common Transport as of November 1, 1996, at DS1, DS3, STS-1 or higher transmission bit rate circuits. Common Transport consists of BellSouth inter-office transport facilities and is distinct and separate from local switching.

30.9.7 **"Dedicated Transport"** is an interoffice transmission path between AT&T designated locations separate and distinct from local switching .

BellSouth shall offer AT&T Digital Cross Connect Systems (DCS). DCS provides for the automated cross connection of digital signals at DSO and higher bit rates. BellSouth shall offer DCS at DSO, DS1, DS3, STS-1, and other technically feasible cross connects as designated by AT&T. BellSouth agrees to provide operations support to AT&T twenty-four (24) hours a day, seven (7) days a week.

30.9.8 AT&T designated locations may include BellSouth central offices or other equipment locations, AT&T network components, other carrier network components, or customer premises. Dedicated Transport includes all Dedicated Transport technologies such as DS1, DS3, and SONET. In addition, Dedicated transport includes the Digital Cross-Connect System (DCS) functionality as an option. Transport facilities consist of optical fiber, copper, and coaxial cable.

30.9.8.1 **"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. BellSouth shall offer Signaling Link Transport as of November 1, 1996.

30.9.9 **"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 STPSs. BellSouth shall offer SS7 AIN unmediated access through its STPSs. BellSouth shall offer Signaling Transfer Points as of November 1, 1996.

30.9.10 **Service Control Points (SCPs)/Databases**

30.9.10.1 **Databases** are the Network Elements that provide the functionality for storage of, access to, and manipulation of information required to offer a particular service or capability. Databases include, but are not limited to: Local Number Portability, LIDB, Toll Free Number Database, Automatic Location Identification/Data Management System, access to Service Creation Environment and Service Management System (SCE/SMS).

30.9.10.2 A **Service Control Point (SCP)** is a specific type of Database 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).

30.9.11 **"Tandem Switching"** is the function that establishes a communications path between two switching offices through a third switching office (the tandem switch). BellSouth shall offer Tandem Switching as of November 1, 1996.

30.10 **Standards for Network Elements**

30.10.1 Each Network Element shall be equal to or better than the requirements set forth in the technical references, as well as any performance or other requirements, identified herein. If another Bell Communications Research, Inc. ("Bellcore"), or industry standard (e.g., American National Standards Institute ("ANSI")) technical reference or a more recent version of such reference sets forth a different requirement, AT&T may elect, where technically feasible, which standard shall apply.

30.10.2 If one or more of the requirements set forth in this Agreement are in conflict, AT&T shall elect which requirement shall apply.

30.10.3 Each Network Element provided by BellSouth to AT&T shall be at least equal in the quality of design, performance, features, functions and other characteristics, including but not limited to levels and types of redundant equipment and facilities for power, diversity and security, that BellSouth provides in the BellSouth network to itself, BellSouth's own customers, to a BellSouth affiliate or to any other entity.

30.10.3.1 BellSouth shall provide to AT&T, upon reasonable request, such engineering, design, performance and other network data sufficient for AT&T to determine that the requirements of this Section 30 are being met. In the event that such data indicates that the requirements of this Section 30 are not being met, BellSouth shall, within 10 days, cure any design, performance or other deficiency and provide new data sufficient for AT&T to determine that such deficiencies have been cured.

30.10.3.2 BellSouth agrees to work cooperatively with AT&T to provide Network Elements that will meet AT&T's needs in providing services to its customers.

30.10.4 Unless otherwise designated by AT&T, each Network Element and the interconnections between Network Elements provided by BellSouth to AT&T shall be made available to AT&T on a priority basis that is equal to or better than the priorities that BellSouth provides to itself, BellSouth's own customers, to a BellSouth affiliate or to any other entity.

PART III: ANCILLARY FUNCTIONS

31. **Introduction**

This Part III sets forth the Ancillary Functions that BellSouth agrees to offer to AT&T so that AT&T may obtain and use unbundled Network Elements or BellSouth services to provide services to its customers.

32. **BellSouth Provision of Ancillary Functions**

32.1 BellSouth will offer Ancillary Functions to AT&T on rates, terms and conditions that are just, reasonable, and non-discriminatory and in accordance with the terms and conditions of this Agreement.

32.2 BellSouth will permit AT&T to interconnect AT&T's equipment and facilities or equipment and facilities provided by AT&T or by third parties at any point designated by AT&T that is technically feasible.

32.3 AT&T may use any Ancillary Function to provide any feature, function, or service option that such Ancillary Function is capable of providing or any feature, function, or service option that is described in the technical references identified herein, or as may otherwise be designated by AT&T.

32.4 The Ancillary Functions that AT&T has identified as of the Effective Date of this Agreement are Collocation; Rights Of Way (ROW); Conduits and Pole Attachments and Used Transmission Media. AT&T and BellSouth agree that the Ancillary Functions identified in this Part III are not exclusive. Either party may identify additional or revised Ancillary Functions as necessary to improve services to customers, to improve network or service efficiencies or to accommodate changing technologies, customer demand, or regulatory requirements. Upon the identification of a new or revised Ancillary Function, the party so identifying the new or revised Ancillary Function shall notify the other Party of the existence of and the technical characteristics of the new or revised Ancillary Function. If the Parties do not agree on the existence of and the technical characteristics of the newly identified or revised Ancillary Function, any issues that have not been resolved by the parties within thirty (30) days of notification shall be submitted to the Dispute Resolution Procedures as set forth in Section 16 of the General Terms and Conditions. Within thirty (30) days of AT&T and BellSouth agreeing on the technical characteristics of the new or revised Ancillary Function, the Parties will attempt to agree on the rates, terms and conditions that would apply to such Ancillary Function and the effects, if any, on the price, performance or other terms and conditions of existing Network Elements or Ancillary Functions. If the parties do not agree on rates, terms and conditions and other matters set forth herein, any issues that have not been resolved by the parties within thirty days shall be submitted to the Dispute Resolution Procedures as set

forth in this Agreement. Additionally, if BellSouth provides any Ancillary Function that is not identified in this Agreement to itself, to its own customers, to a BellSouth affiliate or to any other entity, BellSouth will provide the same Ancillary Function to AT&T at rates, terms and conditions no less favorable to AT&T than those provided by BellSouth to itself or to any other party. The Ancillary Functions and requirements for each Ancillary Function are set forth in Attachment 3.

33. **Standards for Ancillary Functions**

33.1 Each Ancillary Function shall meet or exceed the requirements set forth in the technical references, as well as the performance and other requirements, identified herein. If another Bell Communications Research, Inc. ("Bellcore"), or industry standard (e.g., American National Standards Institute ("ANSI")) technical reference sets forth a different requirement, AT&T may elect, where technically feasible, which standard shall apply.

33.2 Each Ancillary Function provided by BellSouth to AT&T shall be at least equal in the quality of design, performance, features, functions and other characteristics, including, but not limited to levels and types of redundant equipment and facilities for diversity and security, that BellSouth provides in BellSouth network to itself, its own customers, its affiliates or any other entity.

33.3 BellSouth shall provide to AT&T, upon reasonable request, such engineering, design, performance and other network data sufficient for AT&T to determine that the requirements of this Agreement are being met. In the event that such data indicates that the requirements of this Agreement are not being met, BellSouth shall, within thirty (30) days, cure any design, performance or other deficiency and provide new data sufficient for AT&T to determine that such deficiencies have been cured.

33.3.1 BellSouth agrees to work cooperatively with AT&T to provide Ancillary Functions that will meet AT&T's needs in providing services to its customers.

33.4 Unless otherwise designated by AT&T, each Ancillary Function provided by BellSouth to AT&T shall be made available to AT&T on a priority basis that is at least equal to the priorities that BellSouth provides to itself, its customers, its affiliates or any other entity.

PART IV PRICING[1]:

34. **General Principles**

All services currently provided hereunder (including resold Local Services), Network Elements and Combinations and all new and additional services or Network Elements to be provided hereunder, shall be priced in accordance with all applicable provisions of the Act and the rules and orders of the Federal Communications Commission and any state public utility commission having jurisdiction over this Agreement.

34.1 **Most Favored Customer**

35. Pursuant to Section 5 of this Agreement, BellSouth will treat AT&T as a Most Favored Customer.

36. **Price Schedules**

36.1 **Local Service Resale**

The rates that AT&T shall pay to BellSouth for Local Services resale shall be BellSouth's Retail Rates less the Total Applicable Discount. If BellSouth reduces its Retail Rates after AT&T executes this Agreement, the Total Applicable Discount shall be applied to the reduced Retail Rates.

36.1.1 **Total Applicable Discount**

The Total Applicable Discount is the sum of three separate discounts: (i) the Region-wide Base Line discount; (ii) the Operational Parity Discount; and (iii) the Volume Discount.

36.1.1.1 **Region-Wide Base Line**

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[1] THIS PART IV CONTAINS AT&T PROPRIETARY AND COMMERCIALLY SENSITIVE INFORMATION WHICH MAY BE DISCLOSED BY BELLSOUTH ONLY TO EMPLOYEES OR REPRESENTATIVES OF BELLSOUTH WITH A "NEED TO KNOW" PURSUANT TO THE BELLSOUTH/AT&T CONFIDENTIALITY AGREEMENT ENTERED INTO FOR PURPOSES OF NEGOTIATIONS UNDER THE TELECOMMUNICATIONS ACT OF 1996. DISCLOSURE TO ANY OTHER PARTY WITHOUT THE WRITTEN PERMISSION OF AT&T IS PROHIBITED.

The Region-Wide Base Line discount equals ( ) percent and applies to any and all Telecommunication Services available for Resale as described in Part II of this agreement.

36.1.1.2 Operational Parity Discount

36.1.1.3 BellSouth shall provide the electronic interfaces required under this Agreement to enable AT&T to achieve operational parity with BellSouth by . If the respective electronic interfaces are not fully operational by the dates specified in this Agreement then each of the specified elements of the Operational Parity discount shall become effective immediately at such specified dates and shall apply to all Telecommunication Services until the respective electronic interfaces are fully operational for ninety (90) consecutive days. BellSouth and AT&T shall agree on performance metrics that BellSouth must meet to be considered "fully operational."

Interface Elements	Operational Parity Discount
Pre-Service Ordering Interfaces	3%
Service Order Processing & Provisioning Interfaces	3%
Directory Listing and Line Information Database	3%
Service Trouble Reporting Interfaces	3%
Daily Local Usage Data	3%

36.1.1.3.1 Non-Recurring Charges for OUTPLOC

BellSouth will charge dollars for each "switch as requested" until electronic interfaces are fully operational, at which time BellSouth will charge the same rate as it charges for PIC changes.

36.1.1.4 Volume Discount

AT&T agrees to purchase from BellSouth the number of lines (basic residence lines plus business lines) specified below between the

effective dates specified below and . If AT&T meets its volume commitment levels before the specified effective dates, the discount rate corresponding to higher volume commitment level shall apply immediately to all Telecommunication Services.

Effective Date	Lines (Millions)	Volume Discount
		%
		%
		%
		%
		%
		%
		%
		%

BellSouth will not be required to make available for resale all of its Contract Service Arrangements, Special Arrangements, and Promotion after the applicable Volume Discount equals or exceeds ( ) percent.

36.1.2 **Physical Arrangements**

BellSouth will make interconnection arrangements available at all tandem switching and end office switching locations.

At the discretion of AT&T, local interconnection may be accomplished via one-way local trunks, or two way local trunks, or AT&T may choose to deliver both Local Traffic and toll traffic over the same trunk group(s). With respect to the latter scenario, AT&T will have to provide an Percent Local Usage (PLU) to facilitate billing if it desires application of the local interconnection rate.

36.1.3 Compensation for the exchange of Local Traffic shall be accomplished initially on a "bill and keep" basis. After twelve months of performance under this Agreement, either BellSouth or AT&T may demand that compensation due both parties for the exchange of Local Traffic be set at an amount equal to the TSLRIC incurred by BellSouth to provide interconnection service on a per-minute-of-use basis. For the first twelve months of TSLRIC compensation, each party's payments will be limited to one hundred five (105) percent of the calculated reciprocal payment on a monthly billing basis. In no event shall TSLRIC exceed $0.001 per-minute-of-use during the term of this Agreement.

36.1.4 AT&T shall pay BellSouth the TSLRIC associated with the tandem switching function where local calls originated by an AT&T customer traverses a BellSouth tandem switch to be completed to another ALEC. In no event shall

the TSLRIC exceed $0.0003 per-minute-of-use during the term of the Agreement.

36.1.5 Compensation for the termination of toll traffic and the origination of 800 traffic between the interconnecting parties shall equal the applicable interexchange access charges.

36.1.6 Standard meet point billing arrangements shall apply when the completion of a toll call involves both BellSouth and AT&T facilities.

36.1.7 In the event a toll call is completed through an interim service provider's number portability arrangement (e.g., remote call forwarding, flexible DID, etc.) to a Customer of the new Carrier of Record, the new Carrier of Record is entitled to applicable end office terminating switched access charges (e.g., local switching, line termination, carrier common line, residential interconnection charge, etc.) The company forwarding the call will be considered to be adequately compensated through the charges it receives for porting the number.

36.2 **Unbundled Network Elements/Ancillary Function**

The charges that AT&T shall pay to BellSouth for Unbundled Network elements are set forth in Table 1.

36.3 **Directory Listing**

BellSouth will not charge AT&T or its customers for (i) basic white page listings for residential customers; (ii) basic yellow page and business white page listings (as available to BellSouth customers) for business customers; or (iii) distribution of white and yellow page directories. BellSouth shall offer for resale enhanced directory listings at Retail Rates, less the Total applicable Discount, and pursuant to the terms and conditions offered to BellSouth customers.

36.3.1 AT&T is responsible for providing BellSouth with accurate directory information in an established format and in a timely manner.

AT&T PRICE PROPOSAL TO BELLSOUTH
UNBUNDLED NETWORK ELEMENTS

TABLE 1

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Network Interface Device	Twisted Pair	For 2 or 4-wire termination	None	All States
	Smart- Jack	T1 Line	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data	
	Fiber		BellSouth agrees to provide at direct economic cost upon receipt of a bona fide request from AT&T	
	Coax		BellSouth agrees to provide at direct economic cost upon receipt of a bona fide request from AT&T	
Distribution Media (Loop Distribution)	Various capabilities, incl. twisted pair, DS1, DS3, Optical SONET OCn, Analog Radio Freq., Broadband		AT&T and BellSouth agree to work together to expeditiously resolve issues regarding the provision of this unbundled element, and to reach a resolution satisfactory to both parties.	
Loop Concentrator/ Multiplexer	Virtual remote terminal @ DS0 and DS1 levels. DLC system offering		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
Loop Feeder	Various options, including twisted pair, DS1, Fiber OCn		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
Loop Combination	2W	POTS, Centrex, ISDN, PBX, PL, FX Digital Data, etc.	Al - Fla- Ga- Ky- La- Ms- N.C.- S.C.- Tn- No SLC billing by BellSouth to AT&T or its customers	Proposed price(s) will be provided following receipt of suitable BellSouth price proposal that recognizes various unbundled element ordering options.

This proposal is contingent upon reaching agreement with respect to Local Services Resale (LSR) and Interconnection.

AT&T PRICE PROPOSAL TO BELLSOUTH
UNBUNDLED NETWORK ELEMENTS

TABLE *

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Loop Combination Cont'd	4W	POTS, Centrex, ISDN, PBX, PL, FX Digital Data, etc	Al - Fla- Ga- Ky- La- Ms- N C - S C - Tn- No SLC billing by BellSouth to AT&T or its customers	Proposed price(s) will be provided following receipt of suitable BellSouth price proposal that recognizes various unbundled element ordering options
	DS1	Terminated on DSX-1	All states. per month	See comment under 4W NRC.
	DS3	Fiber Optic cable	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
	Optical SONET OCn		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
	SONET ring, terminated in CO		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
	SONET ring between customers		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
	IOC Mileage	LEC office to ALEC office	Dedicated local transport charges apply.	
	Channelization	Converts up to 96 VG loops to DS1 level for connection with ALEC POI. Concentrated or non-concentrated @ option of customer.	monthly per system plus $ per circuit.	for first system and for each additional system, plus per circuit.

AT&T PRICE PROPOSAL TO BELLSOUTH
UNBUNDLED NETWORK ELEMENTS

TABLE

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
	Distance sensitive loop rates		To the extent BellSouth offers rates to retail customers reflecting distance sensitive loop charges it shall provide loops to AT&T at equivalent charges. This provision applies to both implicit and explicit deaveraged pricing.	

AT&T PRICE PROPOSAL TO BELLSOUTH
UNBUNDLED NETWORK ELEMENTS

TABLE

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Loop Combination and Sub-Loop Elements	Loop cost variance by geographic area	Wire center census group, etc.	Proposed loop prices are composite state averages. BellSouth will perform cost studies to determine geographic cost differences and implement prices that reflect those differences	
Local Switching	Features	Route operator and directory assistance traffic to customer's preferred carrier	None	None
		Route local intraLATA, interLATA, international traffic to customer's preferred carrier.	None	None
		Translations to direct AIN queries to AT&T SS7 network, to receive responses, and to continue call handling in accordance with responses.	None	None
	Line Interface	Residence Service. Standard tip & ring. Includes loop start, ground start, on-hook	Monthly: Al- Fla- Ga- Ky- La- Ms- N.C.- S.C.- Tn-	Proposed price(s) will be provided following receipt of suitable BellSouth price proposal that recognizes various unbundled element ordering options.
		Business Service. Standard tip & ring. Includes loopstart, groundstart, on-hook	Monthly: Al- Fla- $ Ga- $ Ky- Ky- La- Ms- N.C.- S.C.- Tn-	Proposed price(s) will be provided following receipt of suitable BellSouth price proposal that recognizes various unbundled element ordering options.
		Coin. Includes public, semi-pub, COCOT, and options.	Monthly: Al- Fla- Ga- Ky- La- Ms- N.C.- S.C.- Tn-	Proposed price(s) will be provided following receipt of suitable BellSouth price proposal that recognizes various unbundled element ordering options.

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Local Switching, Cont'd	Line Interface Cont'd	2W ISDN	All States per month	Proposed price(s) will be provided following receipt of suitable BellSouth price proposal that recognizes various unbundled element ordering options
		DS1 ISDN	All States per month per line interface	See Note for 2W ISDN
		TR 08- Dig Loop Cxr	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
		TR 303- Dig Loop Cxr	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
		2-Wire/ 4-Wire analog interface to PBX	Monthly: Al - $ Fla- $ Ga- $ Ky- $ La- $ Ms- $ N.C.- $ S.C.- $ Tn-	Proposed price(s) will be provided following receipt of suitable BellSouth price proposal that recognizes various unbundled element ordering options.
		DS1 interface to PBX or CPE	All States: per month	See Note for 2W ISDN
		Switched Fractional DS1 with capabilities to configure Nx64 channels, n <25	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
		Direct in Dial	All States: per month per equipped line	None

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Local Switching, Cont'd	Rotary		All States per month per equipped line	None
	End office switching functions, including intraoffice, interoffice, toll, access, and local	Originating and Terminating switching	All States: Originating, first minute Originating, add'l minute Terminating, per minute	None
	BellSouth proposed universal local call termination option. Includes local switching, common transport, signaling, and far end local switching to terminate local calls.	Originating and Terminating switching plus local trpt. Includes intraoffice. Also includes calling to expanded local and toll substitute plan areas.	All States: Originating, first minute. Originating, add'l minute Terminating, per minute: Includes access traffic and calling to and from all points in expanded and toll substitute areas.	None
	Features	Residential Features	None	All States: per feature activated after initial service installation.
		CLASS features	None	All States: per feature activated after initial service installation.

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Local Switching (Cont'd)	Features (Cont'd)	Business/ Centrex Features	None	All States per feature activated after initial service installation
		AIN Features	None	All States per feature activated after initial service installation.
	Trunk Terminations	CAMA ANI	None	None
		FGB	None	None
		FGD/ IEC Operator	None	None
		DS 3	None	None
		64 kbps clear channel	None	None
		Switched digital- 56 & 64 kb/s	None	None
	Loop/ Switch cross-connect	Connection of unbundled switch and colocated loop elements.	Included in individual element rates.	
	Switch/ Trunk Cross-connect	Connection of unbundled switch and colocated transport elements.	Included in individual element rates.	

AT&T PRICE PROPOSAL TO BELLSOUTH
UNBUNDLED NETWORK ELEMENTS

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Local Operator Services	0+ Calling Card	0+ calling card	per call	None
		automated calling card	per call	None
	Station	0- calling card	per call	None
		0- bill to third	per call	None
		0- collect	per call	None
		0- no attempt	$ per call	None
		0+ bill to third	$ per call	None
		Automated bill to third	$ per call	None
		0+ collect	$C per call	None
		automated collect	$ per call	None
		sent paid	$ per call	None
	Person	0- calling card	per call	None
		0- bill to third	per call	None
		0- collect	per call	None
		0+ calling card	per call	None
		0+ bill to third	per call	None
		0+ collect	per call	None
	Dialing instructions		Per call rate based on expense per work minute	None
	Route 0- to live operator		None	None
	Time & Charges		Per call rate based on expense per work minute	None

Item	Type	Explanation	AT&T Price Proposal Recurring	NRC
Local Operator Services (Cont'd)	Busy Line Verification		Proposed price(s) will be provided following receipt and review of BellSouth cost data	
	Emergency Interrupt		Proposed price(s) will be provided following receipt and review of BellSouth cost data	
	Emergency Call Trace		Proposed price(s) will be provided following receipt and review of BellSouth cost data.	
	Operator Transport		No additional charge under combined switch/transport proposal. Charge from ALEC switch @ proposed rates, less credit of per call.	
Local Directory Assistance	Directory assistance		per call	None
	Directory Transport		No additional charge under combined switch/transport proposal. Charge from ALEC switch @ proposed rates, less credit of per call.	
	DA Interconnection		None	
	DA Database Service		AT&T will respond to BellSouth proposal on or before July 3, 1996.	
	Direct Access to DA		AT&T will respond to BellSouth proposal on or before July 3, 1996.	
	DA Call Completion		AT&T will respond to BellSouth proposal on or befo	
	Call Completion Termination Charge		AT&T will respond to BellSouth proposal on or before July 3, 1996.	
	Intercept		Proposed price(s) will be provided following receipt and review of BellSouth cost data.	
Common Transport		An interoffice transmission path between LEC network elements. Includes multiplexing, grooming, cross-office wiring to DSX or LGX. Includes DS1,DS3, various SONET level term options, two way or one way option	per mi., per local minute fac. term., per local minute	None

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Dedicated Transport	Voice Grade	An interoffice transmission path between AT&T designated locations	2-Wire Loc Chan per mo 4-Wire Local Chan per mo IO Channel: per mile per fac term Loc Chan not applicable when terminated in BellSouth office	2-W Loc Chan first Add'l 4-W Loc Chan First Add'l IOC First Add'l
	DS0	An interoffice transmission path between AT&T designated locations.	2-Wire Loc Chan: per mo 4-Wire Local Chan: per mo. IO Channel: per mile per fac term Loc Chan not applicable when terminated in BellSouth office	2-W Loc Chan: first Add'l 4-W Loc Chan: First Add'l IOC: First Add'l
	DS1	An interoffice transmission path between AT&T designated locations.	Local Channel: per mo. IO Channel: per mile per fac term. Loc Chan not applicable when terminated in BellSouth office	Local Chan: first Add'l IOC: Each
	DS3	An interoffice transmission path between AT&T designated locations.	Local Channel: per mo. IO Channel: per mile per fac term. Loc Chan not applicab.. when terminated in BellSouth office	Local Channel: IOC: Each
	STS-1		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	

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Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
	Capacity on shared circuit	Includes multiplexing and grooming functionality, and redundant equip and facilities to support protection and restoration	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data	
Dedicated Transport, Cont'd.	System dedicated to AT&T	Includes transmission equipment, facilities, and redundant equip and facilities to support protection and restoration	See SONET Rings	
		SONET line switched rings, OC48	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
		SONET path switched rings, OC 3, OC 12	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
Digital Cross Connect System (DCS)		Auto x-connect, grooming, pt to multi-pt, auto test, broadcast capabilities. Include x-conn to DSX or LGX. AT&T has real time access, real time configuration capabilities		
	DCS1/0	Per System	per month	) first Add'l
	DCS3/1	28 DS1 Channel System	per month	) first $135.00 Add'l
		Per DS1	per month	) first add'l
	DCS3/3		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
	STS-1 X-conn		Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
Tandem Switching			per minute	None
Unbundled Element Features	Various	Features, functions, capabilities not specifically listed in this proposal	BellSouth will provide upon request at direct economic cost.	

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Data Switching	Circuit Switched Data Switching	Data switching functionality required to switch between industry standard ISDN interfaces	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data	
	ISDN Packet Switching	Data switching functionality required to switch between industry standard ISDN interfaces.	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
	Frame Relay	Switching functionality required to connect facilities from the Frame Relay User to Network Interface (UNI) to either another UNI or a communications path at the Network to Network Interface (NNI)	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
	ATM	Switching functionality required to connect facilities from the ATM User to Network Interface (UNI) to either another UNI or a communications path at the Network to Network Interface (NNI)	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
STPs	ISUP Msg.		All States: per msg.	None
	TCAP Msg.		All States: per msg.	None
	Usage Surrogate	Where measurement not available	All States: per month per 56kbps facility	None
Signaling Link Transport	A or D link facility	56kbps	All States: per month	All States: first Add'l
	Signaling facility termination	56kbps	All States: 00 per month	None
	Signaling facility termination	DS1	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	

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AT&T PRICE PROPOSAL TO BELLSOUTH
UNBUNDLED NETWORK ELEMENTS

TABLE

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
SCPs/ Data Bases	Line Info Database (LIDB)	Storage Agreement	AT&T will respond to BellSouth proposal on or before July 3, 1996	
		Use of ALEC LIDB data	AT&T will respond to BellSouth proposal on or before July 3, 1996	
		Validation	AT&T will respond to BellSouth proposal on or before July 3, 1996.	
	Toll Free Number Portability Database		AT&T will respond to BellSouth proposal on or before July 3, 1996.	
	ALI/DMS Database	Contains information regarding routing of calls to public safety answering points	AT&T may access 911 Tandem using local transport facilities contained in this proposal.	
	SCE/SMS/ AIN Access	Ability to create service applications in the BST SCE and deploy those applications to the BST SCP	Proposed price(s) will be provided following receipt of BellSouth cost data.	
		Ability to create service applications in the AT&T SCE and deploy those applications via the AT&T SCP to BST SSPs	Proposed price(s) will be provided following receipt of BellSouth cost data.	

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Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Interim Number Portability	SPNP- Remote		Proposed price(s) will be provided following receipt of BellSouth cost data	
	SPNP-Directory Number-Route Index		Proposed price(s) will be provided following receipt of BellSouth cost data.	
	SPNP-LERG Reassignment		Proposed price(s) will be provided following receipt of BellSouth cost data.	
Directory Listings			See interconnection proposal. In addition, charges for additional and optional listings shall be subject to reductions for sales commissions paid AT&T	
CMDS- Hosting			AT&T will respond to BellSouth proposal on or before July 3, 1996.	
Non-Sent Paid Report System		Mechanized report system providing companies within BellSouth region info regarding Non-Sent Paid message and revenue distribution	AT&T will respond to BellSouth proposal on or before July 3, 1996.	
Poles, Ducts, Conduits and Rights of Way			Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	
Virtual Collocation			Proposed price(s) will be provided following receipt and review of BellSouth cost data.	
Physical Collocation			Proposed price(s) will be provided following receipt and review of BellSouth cost data.	
Lease of unused transmission media		Interoffice transmission media which has no lightwave or electronic transmission equipment terminated to operationalize its transmission capabilities.	Proposed price(s) will be provided following receipt and review of BellSouth price proposal and/ or receipt of BellSouth cost data.	

Item	Type	Explanation	AT&T Price Proposal	
			Recurring	NRC
Local Calling Area Boundary Guide			BellSouth proposal to provide at no charge accepted	
Recorded Usage Data Charge			Proposed price(s) will be provided following receipt and review of BellSouth cost data.	Not Applicable

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IN WITNESS WHEREOF, the parties have executed this Agreement through their authorized representatives.

BELLSOUTH TELECOMMUNICATIONS, INC.	AT&T Corp.
By:_____	By:_____
Name	Name
Title	Title
Date	Date

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ALTERNATIVE DISPUTE RESOLUTION

ALTERNATIVE DISPUTE RESOLUTION

1. **Purpose**

Attachment 1 provides for the expeditious, economical, and equitable resolution of disputes between BellSouth and AT&T arising under this Agreement.

2. **Exclusive Remedy**

2.1 Negotiation and arbitration under the procedures provided herein shall be the exclusive remedy for all disputes between BellSouth and AT&T arising under or related to this Agreement including its breach, except for: (i) disputes arising pursuant to Attachment 6, Connectivity Billing, disputes or matters for which the Telecommunications Act of 1996 specifies a particular remedy or procedure. BellSouth 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 Federal Communications Commission or any other federal or state regulatory agency exercises jurisdiction over and decides any dispute related to this Agreement or to any BellSouth 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.

3. **Informal Resolution of Disputes**

3.1 The parties to this Agreement shall submit any and all disputes between BellSouth 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 BellSouth at the Vice-President-or-above level (or at such lower level as each Party may designate).

3.2 The Parties may enter into a settlement of any dispute at any time.

4. **Initiation of an Arbitration**

If the Inter-Company Review Board is unable to resolve the dispute within thirty (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, either Party may initiate an arbitration in accordance with the rules of the American Arbitration Association ("AAA").

5. **Governing Rules for Arbitration**

The rules set forth below and the rules 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.

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 Parties have initiated an arbitration proceeding (or such longer period as the Parties may mutually agree to in writing).

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 designates). 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 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 appointed pursuant to Section 6.6 of this Attachment 1 may be removed at any time unilaterally by either Party, upon thirty (30) days' prior written notice to the Arbitrator and to the other Party.

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: (i) award punitive damages; (ii) or any remedy rendered unavailable to the Parties pursuant to Section 10.3 of this Agreement; or (iii) limit, expand, or otherwise modify the terms of this Agreement.

7.2

8. **Discovery**

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

9. **Privileges**

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

9.2 At no time, for any purposes, may a Party introduce into evidence or inform the Arbitrator 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.

10. **Location of Hearing**

Unless both Parties agree otherwise, hearings shall take place in Atlanta, Georgia.

11. **Decision**

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.

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 where 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 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, expert fees, costs, and expenses without regard to the local rules of the district in which the suit is brought.

13. Confidentiality

13.1 BellSouth, 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

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.

14.1 Service by AT&T to BellSouth and by BellSouth to AT&T at the address designated for delivery of notices in this Agreement shall be deemed to be service to BellSouth or AT&T, respectfully.

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SERVICE DESCRIPTION: UNBUNDLED NETWORK ELEMENTS

1. **Introduction**

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

2. **Contiguous Loop**

3. BellSouth uses integrated Digital Loop Carrier (DLCs) systems to provide the local loop, BellSouth will make alternative arrangements to permit AT&T to order a contiguous unbundled local loop. These arrangements may, at BellSouth's option, include the following: provide AT&T with copper facilities that are acceptable to AT&T; deploy Virtual Remote Terminals; allow AT&T to purchase the entire integrated DLC; or convert integrated DLCs to non-integrated systems.

4. **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.

4.1 **Network Interface Device**

4.1.1 **Definition:**

4.1.1.1 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.

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

4.1.1.3 Figure 1 shows a schematic of a NID.

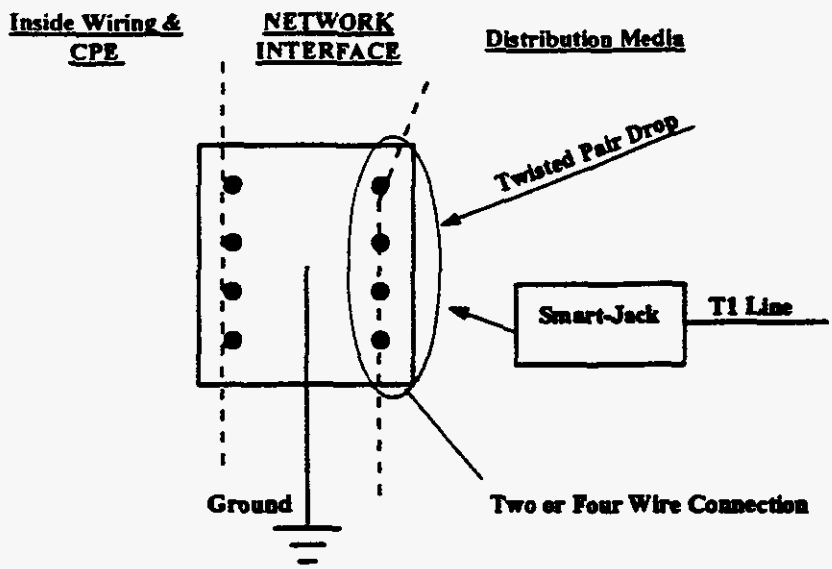

Figure 1 - Network Interface Device

4.1.2 **Technical Requirements**

4.1.2.1 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.

4.1.2.2 The NID shall be capable of transferring electrical analog or digital signals between the customer's inside wiring and the Distribution Media.

4.1.2.3 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.

4.1.2.4 The NID shall be capable of withstanding all normal local environmental variations.

4.1.2.5 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. 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.

4.1.2.6 BellSouth shall offer the NID together with, and separately from the Distribution Media component of Loop Distribution.

4.1.3 **Interface Requirements**

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

4.1.3.2 BellSouth shall permit AT&T to remove any existing terminations to the NID and replace them with terminations designated by AT&T. BellSouth shall not remove or alter customer inside wiring. If AT&T requires a NID without other subloop elements, AT&T shall provide and BellSouth shall accept AT&T's certified grounding of BellSouth's Loop[Distribution Facility when it is disconnected from the NID. **[Subject to Negotiation]**

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

4.1.3.3.1 Bellcore Technical Advisory TA-TSY-000120 "Customer Premises or Network Ground Wire";

4.1.3.3.2 Bellcore Generic Requirement GR-49-CORE "Generic Requirements for Outdoor Telephone Network Interface Devices";

4.1.3.3.3 Bellcore Technical Requirement TR-NWT-00239 "Indoor Telephone Network Interfaces";

4.1.3.3.4 Bellcore Technical Requirement TR-NWT-000937 "Generic Requirements for Outdoor and Indoor Building Entrance"; and,

4.1.3.3.5 Bellcore Technical Requirement TR-NWT-000133 "Generic Requirements for Network Inside Wiring."

4.2 **Distribution Media**

4.2.1 **Definition:**

4.2.1.1 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.

4.2.1.2 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 BellSouth offers is other than a copper facility.

4.2.2 **Requirements for All Distribution Media**

4.2.2.1 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):

4.2.2.1.1 2-wire voice grade basic telephone services;

4.2.2.1.2 2-wire ISDN;

4.2.2.1.3 2-wire Centrex;

4.2.2.1.4 2 and 4-wire PBX lines or trunks;

4.2.2.1.5 2 and 4-wire voice grade private lines and foreign exchange lines;

4.2.2.1.6 4-wire digital data (2.4Kbps through 64Kbps and n times 64Kbps (where $n \leq 24$); and

4.2.2.1.7 4-wire DS1 (switched or private line).

4.2.2.2 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.

4.2.2.3 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.

4.2.2.4 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.

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

4.2.2.5.1 Bellcore TR-TSY-000057, "Functional Criteria for Digital Loop Carrier Systems"; and,

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

4.2.2.6 BellSouth shall provide AT&T with physical access to, and the right to connect to, the FDI.

4.2.2.6.1 BellSouth shall offer Distribution Media together with, and separately from the NID component of Loop Distribution.

4.2.3 **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.

4.2.4 **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:

4.2.4.1 DS3 rate private line service;

4.2.4.2 Optical SONET OCn rate private lines (where n is defined in the technical reference in Section 3.2.4.4; and

4.2.4.3 Analog Radio Frequency based services (*e.g.*, Cable Television (CATV)

4.2.5 **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:

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

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

4.2.6 **Interface Requirements**

4.2.6.1 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.

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

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

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

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

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

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

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

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

5. **Loop Concentrator/Multiplexer**

5.1 **Definition:**

5.1.1 The Loop Concentrator/Multiplexer is the Network Element that: (1) aggregates lower bit rate or bandwidth signals to higher bit rate or bandwidth signals (multiplexing); (2) disaggregates higher bit rate or bandwidth 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.

5.1.2 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.

5.2 **Technical Requirements**

5.2.1 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):

5.2.1.1 2-wire voice grade basic telephone services;

5.2.1.2 2-wire ISDN;

5.2.1.3 2-wire Centrex;

5.2.1.4 2 and 4-wire PBX lines or trunks;

5.2.1.5 2 and 4-wire voice grade private lines and foreign exchange lines;

5.2.1.6 4-wire digital data (2.4Kbps through 64Kbps and n times 64Kbps (where $n \leq 24$);

5.2.1.7 4-wire DS1 (switched or private line);

5.2.1.8 DS-3 rate private lines;

5.2.1.9 Optical SONET rate private lines; and

5.2.1.10 Coin services

5.2.2 The Loop Concentrator/Multiplexer shall perform the following functions as appropriate:

5.2.2.1 Analog to digital signal conversion of both incoming and outgoing (upstream and downstream) analog signals;

5.2.2.2 Multiplexing of the individual digital signals up to higher transmission bit rate signals (*e.g.*, DS0, DS1, DS3, or optical SONET rates) for transport to BellSouth central office through the Loop Feeder; and

5.2.2.3 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 BellSouth uses to provide service to its own customers.).

5.2.3 BellSouth 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 Attachment 3.

5.2.4 The Loop Concentrator/Multiplexer shall be provided to AT&T in accordance with the following Technical References:

5.2.4.1 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993.

5.2.4.2 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.

5.2.4.3 ANSI T1.106 - 1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode).

5.2.4.4 ANSI T1.105 - 1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.

5.2.4.5 ANSI T1.102 - 1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces.

5.2.4.6 ANSI T1.403- 1989, American National Standard for Telecommunications - Carrier to Customer Installation, DS1 Metallic Interface Specification.

5.2.4.7 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria.

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

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

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

5.2.4.11 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.

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

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

5.2.4.14 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.

5.2.4.15 Bellcore TR-TSY-000673, Operations Systems Interface for an IDLC System, (LSSGR) FSD 20-02-2100, Issue 1, September 1989.

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

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

5.2.4.18 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.

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

5.3 **Requirements for an Intelligent Loop Concentrator/Multiplexer**

5.3.1 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.

5.3.2 At AT&T's option, BellSouth 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.

5.3.3 At AT&T's option, BellSouth 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.

5.3.4 The underlying equipment that provides such IC/M function shall continuously monitor protected circuit packs and redundant common equipment.

5.3.5 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.

5.3.6 The underlying equipment that provides such IC/M function shall be equipped with a redundant power supply or a battery back-up.

5.3.7 At AT&T's option, BellSouth 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.

5.3.8 At AT&T's option, BellSouth 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.

5.3.9 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.

5.4 **Interface Requirements**

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

5.4.1 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.

5.4.2 The Loop Concentrator/Multiplexer shall provide digital 4-wire electrical interfaces to the local digital switch, as described in the references in Section 3.2.3.1.

5.4.3 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 3.2.3.1.4.

5.4.4 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.

5.4.5 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.

5.5 The Intelligent Loop Concentrator/Multiplexer shall be provided to AT&T in accordance with the Technical References set forth in Sections 3.2.3.1.13 through 3.2.1.19. above.

6. **Loop Feeder**

6.1 **Definition:**

6.1.1 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. BellSouth shall provide AT&T physical access to the FDI, and the right to connect, the Loop Feeder to the FDI.

6.1.2 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 BellSouth offers is other than a copper facility.

6.2 **Requirements for All Loop Feeder Media**

6.2.1 The Loop Feeder shall be capable of transmitting analog voice frequency, basic rate ISDN, digital data, or analog radio frequency signals.

6.2.2 BellSouth shall provide appropriate power for all active elements in the Loop Feeder. BellSouth 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).

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

In addition to requirements set forth in Section 4.2 (above), AT&T may require BellSouth 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.

6.4 **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.

6.5 **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.

6.6 **BellSouth shall offer Loop Feeder in accordance with the requirements set forth in the following Technical References:**

6.6.1 **AT&T Technical Reference TR-62415 "Access Specifications for High Capacity DS1/DS3 Dedicated Digital Service";**

6.6.2 **Bellcore Technical Requirement TR-NWT-000499, Issue 5, December 1993, section 7 for DS1 interfaces;**

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

6.6.4 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993.

6.6.5 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.

6.6.6 ANSI T1.106 - 1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode).

6.6.7 ANSI T1.105 - 1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.

6.6.8 ANSI T1.102 - 1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces.

6.6.9 ANSI T1.403- 1989, American National Standard for Telecommunications - Carrier to Customer Installation, DS1 Metallic Interface Specification.

6.6.10 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria.

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

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

6.6.13 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.

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

6.7 **Interface Requirements**

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

6.7.1.1 Copper twisted pairs shall terminate on the MDF;

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

6.7.1.3 Fiber Optic cable shall terminate on a LGX.

6.7.2 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 4.6.3.

6.7.2.1 The Loop Feeder shall provide the ISDN basic rate interface, as defined in the references in Section 4.6.3, to the local digital switch designated by AT&T.

6.7.2.2 The Loop Feeder shall provide digital 4-wire electrical interfaces for digital data services, as defined in the references in Section 4.6.3.

6.7.2.3 The Loop Feeder shall provide the standard electrical DS1 interface for applications utilizing DS1 feeder, as defined in the references in Section 4.6.3.

6.7.2.4 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 4.6.3.

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

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

6.7.3.2 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.

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

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

6.7.3.5 AT&T Technical Reference TR 54014, ACCUNET T45 Reserved Services - Service Description and Interface Specification.

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

7. **Local Switching**

7.1 **Definition:**

7.1.1 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 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 BellSouth 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), Centrex, 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 Centrex capabilities.

7.1.2 Local Switching also includes Data Switching, which provides:

7.1.2.1 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.

7.1.2.2 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.

7.2 The requirements set forth in this Section 5.2 apply to Local Switching, but not to the Data Switching function of Local Switching.

7.2.1 **Technical Requirements**

7.2.1.1 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).

7.2.1.2 When applicable, BellSouth shall route calls to the appropriate trunk or lines for call origination or termination.

7.2.1.3 BellSouth local switch shall maintain translations necessary to direct AIN queries for select lines and dialing sequences to the AT&T SS7 network.

7.2.1.4 BellSouth 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.

7.2.1.5 BellSouth shall route calls on a per line or per screening class basis to (1) BellSouth platforms providing Network Elements or additional requirements, (2) AT&T designated platforms, or (3) third-party platforms.

7.2.1.6 BellSouth shall provide recorded announcements as designated by AT&T and call progress tones to alert callers of call progress and disposition.

7.2.1.7 BellSouth 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 BellSouth's services to AT&T's services without loss of feature functionality.

7.2.1.8 BellSouth 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.

7.2.1.9 BellSouth shall repair and restore any equipment or any other maintainable component that may adversely impact Local Switching.

7.2.1.10 BellSouth 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.

7.2.1.11 BellSouth shall perform manual call trace as designated by AT&T and permit customer originated call trace.

7.2.1.12 BellSouth shall record billable events and send the appropriate billing data to AT&T as outlined in Attachment 7.

7.2.1.13 For Local Switching used as 911 Tandems, BellSouth shall allow interconnection from AT&T local switching elements and BellSouth shall route the calls to the appropriate Public Safety Access Point (PSAP).

7.2.1.14 BellSouth shall provide, at least, each of the following special services:

7.2.1.14.1 Essential Service Lines;

7.2.1.14.2 Telephone Service Prioritization;

7.2.1.14.3 Related services for handicapped;

7.2.1.14.4 Soft dial tone where required by law; and

7.2.1.14.5 Any other service required by law.

7.2.1.15 BellSouth 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).

7.2.1.16 BellSouth 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.

7.2.1.17 BellSouth shall provide performance data regarding a customer line, traffic characteristics or other measurable elements to AT&T, upon AT&T's request.

7.2.1.18 BellSouth shall offer Local Switching that provides feature offerings at parity to those provided by BellSouth RLECs to itself or any other party. Such feature offerings shall include but are not limited to:

7.2.1.18.1 Basic and primary rate ISDN;

7.2.1.18.2 Residential features;

7.2.1.18.3 Customer Local Area Signaling Services (CLASS/LASS);

7.2.1.18.4 Centrex (including equivalent administrative capabilities, such as customer accessible reconfiguration and detailed message recording); and

7.2.1.18.5 Advanced intelligent network triggers supporting AT&T features. BellSouth shall offer to AT&T all AIN triggers currently available to BellSouth for offering AIN-based services in accordance with the technical reference in Section 5.2.1.6.3, e.g.:

7.2.1.18.5.1 Off-Hook Immediate;

7.2.1.18.5.2 Off-Hook Delay;

7.2.1.18.5.3 Private EAMF Trunk;

7.2.1.18.5.4 Shared Interoffice Trunk (EAMF, SS7);

7.2.1.18.5.5 Termination Attempt;

7.2.1.18.5.6 3/6/10;

7.2.1.18.5.7 N11;

7.2.1.18.5.8 Feature Code Dialing;

7.2.1.18.5.9 Custom Dialing Plan; and

7.2.1.18.5.10 Automatic Route Selection.

7.2.1.19 BellSouth 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.

7.2.1.20 BellSouth 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, BellSouth 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.

7.2.1.21 If AT&T requests the termination of Local Switching, BellSouth shall promptly remove the class of service assignment from the line.

7.2.1.22 If an AT&T customer subscribes to AT&T provided voice mail and messaging services, BellSouth 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, BellSouth shall provide a Standard Message Desk Interface-Enhanced (SMDI-E) interface to the AT&T system. BellSouth shall support the Inter-switch Voice Messaging Service (IVMS) capability.

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

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

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

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

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

7.2.2 **Interface Requirements**

7.2.2.1 BellSouth shall provide the following interfaces to loops:

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

7.2.2.1.2 Coin phone signaling;

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

7.2.2.1.4 Two-wire analog interface to PBX;

7.2.2.1.5 Four-wire analog interface to PBX;

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

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

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

7.2.2.1.9 Loops adhering to Bellcore TR-NWT-08 and TR-NWT-303 specifications to interconnect Digital Loop Carriers.

7.2.2.2 BellSouth shall provide access to the following but not limited to:

7.2.2.2.1 SS7 Signaling Network or Multi-Frequency trunking if requested by AT&T;

7.2.2.2.2 Interface to AT&T operator services systems or Operator Services through appropriate trunk interconnections for the system; and

7.2.2.2.3 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.

7.3 The requirements set forth in this Section 5.3 applies only to the Data Switching function of Local Switching.

7.3.1 **Data Switching Technical Requirements**

7.3.1.1 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.

7.3.1.2 **Frame Relay Functional Requirements**

7.3.1.2.1 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).

7.3.1.2.2 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 ("Signaling Specification for Frame Relay Bearer Service," ANSI

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

7.3.1.2.3 Data Switching provided to AT&T shall be given equal priority to BellSouth's'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 BellSouth's traffic.

7.3.1.2.4 Data Switching shall provide remote data access to integrated test equipment and other integrated functionality on a demand basis in accordance with the following:

7.3.1.2.4.1 Real-time, remote data access to systems that enable the determination of Data Link Connection Identifiers (DLCIs) used by a PVC;

7.3.1.2.4.2 Real-time, remote data access to performance monitoring and alarm data on events affecting (or potentially affecting) AT&T's traffic; and

7.3.1.2.4.3 Real-time, remote data access to maintenance systems to enable end-to-end (customer site-to-customer site) performance and error testing.

7.3.1.2.5 BellSouth shall provision and maintain the underlying facilities required to provide Data Switching.

7.3.1.3 **Frame Relay Interface Requirements**

7.3.1.3.1 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.

7.3.1.3.2 Each T1 UNI interface port shall provide at least 250 PVCs.

7.3.1.3.3 T1 interfaces shall be provided using Extended SuperFrame (ESF) format, for enhanced error monitoring and to aid in sectionalizing problems.

7.3.1.4 **NNI Interface B Requirements**

7.3.1.4.1 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.

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

7.3.1.4.3 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.

7.3.1.4.4 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.

7.3.1.5 **ATM Functional Requirements**

7.3.1.5.1 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)).

7.3.1.5.2 Data Switching provided to AT&T shall be given equal priority to BellSouth'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 BellSouth for its own traffic.

7.3.1.5.3 Data Switching shall provide on-demand, real time, remote data access to integrated test equipment and other integrated functionality in accordance with the following:

7.3.1.5.3.1 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;

7.3.1.5.3.2 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

7.3.1.5.3.3 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 BellSouth.

7.3.1.5.4 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 BellSouth's own services.

7.3.1.5.5 BellSouth shall provision and maintain the facilities required to provide Data Switching.

7.3.1.6 **ATM Interface Requirements** – the following interfaces shall be provided by BellSouth:

7.3.1.6.1 **UNI Interface Requirements**

7.3.1.6.1.1 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.

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

7.3.1.6.2 **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 ≤ 24).

7.3.1.6.3 **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).

7.3.1.6.4 **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:

7.3.1.6.4.1 1996 – Implementation not yet available.

7.3.1.6.4.2 1997 – Interim Interswitch Signaling Protocol (IISP) ("Interim Interswitch Signaling Protocol (IISP)," Version 1.0, ATM Forum , December 14, 1994) for PVC and SVC services.

7.3.1.6.4.3 1997 – Broadband Inter-Carrier Interface (BICI) Version 1.1 for PVC services.

7.3.1.6.4.4 1998 – BICI Version 2.0 ("Broadband Inter-Carrier Interface," V. 2.0, ATM Forum, December 1995) for PVC and SVC services.

7.3.1.6.4.5 BellSouth 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.

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

7.3.1.6.5 **Network Management Systems Interconnection (M5) Interface Requirements**

7.3.1.6.6 Effective as of the date this unbundled Network Element is offered, BellSouth will perform network management function twenty-four (24) hours a day, seven (7) days a week electronic interfaces between the AT&T and BellSouth Network Management Centers.

7.3.1.6.6.1 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:

7.3.1.6.6.1.1 Configuration Management;

7.3.1.6.6.1.2 Fault Management;

7.3.1.6.6.1.3 Loopbacks (ATM and Physical);

7.3.1.6.6.1.4 Threshold Reporting;

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

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

7.3.1.6.6.1.7 Performance Management – access Management Information Bases (MIBs) via BellSouth Network Management Systems (NMS) to obtain network level information and status;

7.3.1.6.6.1.8 Security Management – read-only access between networks; and

7.3.1.6.6.1.9 Accounting Management – ability to retrieve required usage information from BellSouth for billing purposes

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

7.3.1.7 **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.

7.3.1.7.1 **Technical Requirements - ISDN**

7.3.1.7.1.1 BellSouth shall offer Data Switching providing ISDN that, at a minimum:

7.3.1.7.1.1.1 Provides integrated packet handling capabilities;

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

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

7.3.1.7.1.2 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.

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

7.3.1.7.1.4 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.

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

7.3.1.7.2 **Interface Requirements - ISDN**

7.3.1.7.2.1 BellSouth 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.*

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

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

7.3.1.7.2.4 BellSouth shall offer PSD trunk interfaces operating at 56Kbs.

8. **Operator Systems**

8.1 **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.

8.2 **Operator Service**

8.2.1 **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.

8.2.2 **Requirements**

8.2.2.1 Operator Services for calls which are routed from the local switch shall be in accordance with the following:

8.2.2.1.1 BellSouth shall complete 0+ and 0- dialed local calls.

8.2.2.1.2 BellSouth shall complete 0+ intraLATA toll calls.

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

8.2.2.1.4 BellSouth shall complete person-to-person calls.

8.2.2.1.5 BellSouth shall complete collect calls.

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

8.2.2.1.7 BellSouth shall complete station-to-station calls.

8.2.2.1.8 BellSouth shall process emergency calls.

8.2.2.1.9 BellSouth shall process Busy Line Verify and Emergency Line Interrupt requests.

8.2.2.1.10 BellSouth shall process emergency call trace.

8.2.2.1.11 BellSouth shall process operator-assisted directory assistance calls.

8.2.2.1.12 BellSouth shall provide rate quotes.

8.2.2.1.13 BellSouth shall process time-and-charges requests.

8.2.2.1.14 BellSouth shall route 0- traffic directly to a "live" operator team.

8.2.2.1.15 BellSouth shall brand Operator Service as specified by AT&T in Part I, Section 19, entitled "Branding."

8.2.2.2 Operator Service shall provide AT&T's local service rates when providing rate quote and time-and-charges services.

8.2.2.3 Operator Service shall adhere to equal access requirements.

8.2.2.4 BellSouth shall exercise at least the same level of fraud control in providing Operator Service to AT&T that BellSouth provides for its own operator service.

8.2.2.5 BellSouth shall perform Billed Number Screening when handling Collect, Person-to-Person, and Billed-to-Third-Party calls.

8.2.2.6 BellSouth shall provide service measurements and accounting reports as designated by AT&T.

8.2.2.7 BellSouth shall direct customer account and other similar inquiries to the customer service center designated by AT&T.

8.2.2.8 BellSouth 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.

8.2.2.9 BellSouth shall accept and process overflow 911 traffic routed from AT&T to the underlying platform used to provide Operator Service.

8.2.3 **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.

8.3 **Directory Service**

8.3.1 **Definition:**

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

8.3.2 **Requirements**

8.3.2.1 Directory Service shall provide up to two listing requests per call and, if requested, shall complete the call to one of the provided listings.

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

8.3.2.3 At AT&T's request, caller-optional directory assistance call completion service which meets the service parity requirements set forth in this Attachment;

8.3.2.4 BellSouth shall provide data regarding billable events as requested by AT&T.

8.3.2.5 **Directory Service Updates**

8.3.2.5.1 BellSouth shall update customer listings changes daily. These changes include:

8.3.2.5.1.1 New customer connections;

8.3.2.5.1.2 Customer disconnections; and

8.3.2.5.1.3 Customer address changes.

8.3.2.6 These updates shall also be provided for non-listed and non-published numbers for use in emergencies.

9. **Common Transport**

9.1 **Definition:** Common Transport is an interoffice transmission path between BellSouth Network Elements (illustrated in Figure 2). Where BellSouth Network Elements are connected by intra-office wiring, such wiring is provided as a part of the Network Elements and is not Common Transport.

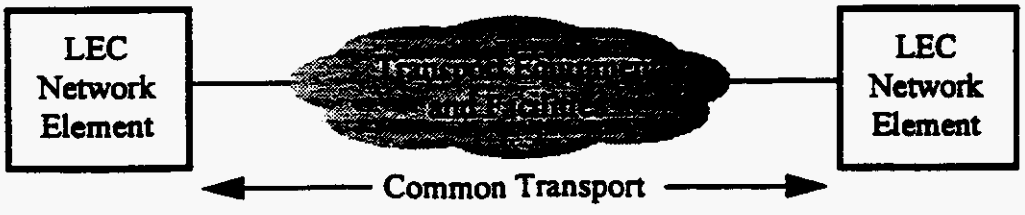

Figure 2

9.2 **Technical Requirements**

9.2.1 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.

9.2.2 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.

9.2.3 BellSouth shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities that are used to provide Common Transport.

9.2.4 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):

9.2.4.1 ANSI T1.101-1994, American National Standard for Telecommunications - Synchronization Interface Standard Performance and Availability;

9.2.4.2 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;

9.2.4.3 ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;

9.2.4.4 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;

9.2.4.5 ANSI T1.105.01-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Automatic Protection Switching;

9.2.4.6 ANSI T1.105.02-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Payload Mappings;

9.2.4.7 ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;

9.2.4.8 ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET): Jitter at Network Interfaces - DS1 Supplement;

9.2.4.9 ANSI T1.105.05-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Tandem Connection;

9.2.4.10 ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;

9.2.4.11 ANSI T1.105.07-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Sub STS-1 Interface Rates and Formats;

9.2.4.12 ANSI T1.105.09-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Network Element Timing and Synchronization;

9.2.4.13 ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);

9.2.4.14 ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;

9.2.4.15 ANSI T1.107a-1990 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications);

9.2.4.16 ANSI T1.107b-1991 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;

9.2.4.17 ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);

9.2.4.18 ANSI T1.403-1989, Carrier to Customer Installation, DS1 Metallic Interface Specification;

9.2.4.19 ANSI T1.404-1994, Network-to-Customer Installation - DS3 Metallic Interface Specification;

9.2.4.20 ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);

9.2.4.21 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;

9.2.4.22 Bellcore FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;

9.2.4.23 Bellcore GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;

9.2.4.24 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria;

9.2.4.25 Bellcore TR-NWT 000507, Transmission, Section 7, Issue 5 (Bellcore, December 1993). (A module of LSSGR, FR-NWT-000064.);

9.2.4.26 Bellcore TR-NWT-000776, Network Interface Description for ISDN Customer Access;

9.2.4.27 Bellcore TR-INS-000342, High-Capacity Digital Special Access Service-Transmission Parameter Limits and Interface Combinations, Issue 1 February 1991;

9.2.4.28 Bellcore ST-TEC 000052, Telecommunications Transmission Engineering Textbook, Volume 2: Facilities, Third Edition, Issue I May 1989;

9.2.4.29 Bellcore ST-TEC-000051, Telecommunications Transmission Engineering Textbook Volume 1: Principles, Third Edition. Issue 1 August 1987;

9.2.4.30 AT&T Technical Reference 54014, ACCUNET T45 Service Description and Interface Specification, May 1992; and

9.2.4.31 AT&T Technical Reference TR 62411 ACCUNET T1.5 Service Description And Interface Specification, December 1990 and all addenda.

10. **Dedicated Transport**

10.1 **Definition:**

10.1.1 Dedicated Transport is an interoffice transmission path between AT&T designated locations. Such locations may include BellSouth 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

10.1.2 BellSouth shall offer Dedicated Transport in each of the following ways:

10.1.2.1 As capacity on a shared circuit.

10.1.2.2 As a circuit (e.g., DS1, DS3, STS-1) dedicated to AT&T.

10.1.2.3 As a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to AT&T.

10.1.3 When Dedicated Transport is provided as a circuit or as capacity on a shared circuit, it shall include (as appropriate):

10.1.3.1 Multiplexing functionality;

10.1.3.2 Grooming functionality; and,

10.1.3.3 Redundant equipment and facilities necessary to support protection and restoration.

10.1.4 When Dedicated Transport is provided as a system it shall include:

10.1.4.1 Transmission equipment such as multiplexers, line terminating equipment, amplifiers, and regenerators;

10.1.4.2 Inter-office transmission facilities such as optical fiber, copper twisted pair, and coaxial cable;

10.1.4.3 Redundant equipment and facilities necessary to support protection and restoration; and,

10.1.4.4 Dedicated Transport includes the Digital Cross-Connect System (DCS) functionality as an option. DCS is described below in Section 8.5.

10.2 **Technical Requirements**

This Section sets forth technical requirements for all Dedicated Transport.

10.2.1 When BellSouth 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.

10.2.2 BellSouth 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.

10.2.3 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.

10.2.4 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.

10.2.5 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.

10.2.6 When physical diversity is requested by AT&T, BellSouth shall provide the maximum feasible physical separation between intra-office and inter-office transmission paths (unless otherwise agreed by AT&T).

10.2.7 Upon AT&T's request, BellSouth shall provide real time and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, AT&T's traffic.

10.2.8 BellSouth shall offer the following interface transmission rates for Dedicated Transport:

10.2.8.1 DS1 (Extended SuperFrame - ESF, D4, and unframed applications shall be provided);

10.2.8.2 DS3 (C-bit Parity, M13, and unframed applications shall be provided);

10.2.8.3 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.

10.2.8.4 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.

10.2.9 BellSouth shall provide cross-office wiring up to a suitable Point of Termination (POT) between Dedicated Transport and AT&T designated equipment. BellSouth shall provide the following equipment for the physical POT:

10.2.9.1 DSX1 for DS1s or VT1.5s;

10.2.9.2 DSX3 for DS3s or STS-1s; and

10.2.9.3 LGX for optical signals (e.g., OC-3 and OC-12)

10.2.10 BellSouth 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.

10.2.11 For Dedicated Transport provided as a system, BellSouth shall design the system (including but not limited to facility routing and termination points) according to AT&T specifications.

10.2.12 Upon AT&T's request, BellSouth shall provide AT&T with electronic provisioning control of an AT&T specified Dedicated Transport.

10.2.13 BellSouth shall offer Dedicated Transport together with and separately from DCS.

10.3 **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.

10.3.1 All SONET Dedicated Transport provided as a system shall:

10.3.1.1 Be synchronized from both a primary and secondary Stratum 1 level timing source. Additional detail on synchronization requirements are given in Section 13.4.

10.3.1.2 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.

10.3.1.3 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 BellSouth, that ring shall support DCC message routing between AT&T SONET network components connected to the ring.

10.3.1.4 Support the following performance requirements for each circuit (STS-1, DS1, DS3, etc.):

10.3.1.4.1 No more than 10 Errored Seconds Per Day (Errored Seconds are defined in the technical reference at Section 8.4.5); and

10.3.1.4.2 No more than 1 Severely Errored Second Per Day (Severely Errored Seconds are defined in the technical reference at Section 8.4.5).

10.3.2 All SONET rings shall:

10.3.2.1 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.

10.3.2.2 Support dual ring interworking per SONET Standards.

10.3.2.3 Provide the necessary redundancy in optics, electronics, and transmission paths (including intra-office wiring) such that no single failure will cause a service interruption.

10.3.2.4 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.

10.3.2.5 Provide the ability to use the protection channels to carry traffic (extra traffic). This requirement applies to line switched rings only.

10.3.2.6 Provide 50 millisecond restoration unless a ring protection delay is set to accommodate dual ring interworking schemes.

10.3.2.7 Have settable ring protection switching thresholds that shall be set in accordance with AT&T's specifications.

10.3.2.8 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.

10.3.2.9 Provide non-revertive protection switching. This requirement applies to path switched rings only.

10.3.2.10 Adhere to the following availability requirements, where availability is defined in the technical reference set forth in Section 8.4.5.

10.3.2.10.1 No more than 0.25 minutes of unavailability month; and

10.3.2.10.2 No more than 0.5 minutes of unavailability per year.

10.4 At a *minimum*, Dedicated Transport shall meet each of the requirements set forth in Section 7.2.4 and in the following technical references.

10.4.1 ANSI T1.105.04-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Data Communication Channel Protocols and Architectures;

10.4.2 ANSI T1.119-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications;

10.4.3 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;

10.4.4 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;

10.4.5 ANSI T1.231-1993 -American National Standard for Telecommunications - Digital Hierarchy - Layer 1 In-Service Digital Transmission performance monitoring.

10.4.6 AT&T Technical Reference TR 54016, Requirements For Interfacing Digital Terminal Equipment To Services Employing The Extended Superframe Format, September 1989;

10.4.7 AT&T Technical Reference TR 62421 ACCUNET Spectrum of Digital Services Description And Interface Specification, December 1989 and all addenda;

10.4.8 AT&T Technical Reference TR 62310, DS0 Digital Local Channel Description And Interface Specification, August 1993 and all addenda; and

OC3TC1

10.4.9 AT&T Technical Reference TR 62415, Access Specification For High Capacity (DS1/DS3) Dedicated Digital Service, June 1989 and all addenda.

10.5 **Digital Cross-Connect System (DCS)**

10.5.1 **Definition:**

10.5.1.1 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.

10.5.1.2 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.

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

10.6 **DCS Technical Requirements**

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

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

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

10.6.4 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.

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

10.6.6 BellSouth shall provide various types of Digital Cross-Connect Systems including:

10.6.6.1 DS0 cross-connects (typically termed DCS 1/0);

10.6.6.2 DS1/VT1.5 (Virtual Tributaries at the 1.5Mbps rate) cross-connects (typically termed DCS 3/1);

10.6.6.3 DS3 cross-connects (typically termed DCS 3/3);

10.6.6.4 STS-1 cross-connects; and

10.6.6.5 Other technically feasible cross-connects designated by AT&T.

10.6.7 BellSouth shall provide immediate and continuous configuration and reconfiguration of the channels between the physical interfaces (*i.e.*, BellSouth 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).

10.6.8 BellSouth shall provide scheduled configuration and reconfiguration of the channels between the physical interfaces (*i.e.*, BellSouth 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).

10.6.9 DCS shall continuously monitor protected circuit packs and redundant common equipment.

10.6.10 DCS shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.

10.6.11 The underlying equipment used to provide DCS shall be equipped with a redundant power supply or a battery back-up.

10.6.12 BellSouth 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.

10.6.13 Effective as of the date this unbundled network element is offered, BellSouth will perform network management functions twenty-four (24) hours a day seven (7) days a week via electronic interfaces between AT&T and BellSouth network management centers. At AT&T's option, BellSouth 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.

10.6.14 At AT&T's option, BellSouth 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.

10.6.15 DCS shall provide SONET to asynchronous gateway functionality (*e.g.*, STS-1 to DS1 or STS-1 to DS3).

10.6.16 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).

10.6.17 DCS shall have SONET ring terminal functionality where the underlying equipment used to provide DCS acts as a terminal on a SONET ring.

10.6.18 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.

10.6.19 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.

10.6.20 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.

10.7 **DCS Interface Requirements**

10.7.1 BellSouth 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.

10.7.2 BellSouth 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.

10.7.3 BellSouth 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.

10.7.4 Interfaces on all other cross-connect devices shall be in compliance with applicable Bellcore, ANSI, ITU , and AT&T standards.

10.8 DCS shall, at a minimum, meet all the requirements set forth in the following technical references:

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

10.8.2 AT&T Data Communications Technical Reference TR 62310 DS0 Digital Local Channel Description and Interface Specification, August 1993, and all addendums;

10.8.3 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;

10.8.4 AT&T Technical Reference TR 62411 ACCUNET® T1.5 Service Description And Interface Specification, December 1990 and all addendums including Addendum 2, October 1992;

10.8.5 AT&T Technical Reference TR 54014 ACCUNET® T45 and T45 Reserved Services - Service Description And Interface Specification;

10.8.6 AT&T Technical Reference TR 54018 OC-3 Optical Interface Specifications, November 1991;

10.8.7 AT&T Technical Reference TR 54016 Requirements For Interfacing Digital Terminal Equipment To Services Employing The Extended Superframe Format, September 1989;

10.8.8 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;

10.8.9 ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;

10.8.10 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;

10.8.11 ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;

10.8.12 ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET): Jitter at Network Interfaces - DS1 Supplement;

10.8.13 ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;

10.8.14 ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);

10.8.15 ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;

10.8.16 ANSI T1.107a-1990 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications);

10.8.17 ANSI T1.107b-1991 - American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;

10.8.18 ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);

10.8.19 ANSI T1.403-1989, Carrier to Customer Installation, DS1 Metallic Interface Specification;

10.8.20 ANSI T1.404-1994, Network-to-Customer Installation - DS3 Metallic Interface Specification;

10.8.21 ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);

10.8.22 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;

10.8.23 FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;

10.8.24 GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;

10.8.25 GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria; and

10.8.26 TR-NWT-000776, Network Interface Description for ISDN Customer Access.

11. **Signaling Link Transport**

11.1 **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.

11.2 **Technical Requirements**

11.2.1 Signaling Link Transport shall consist of full duplex mode 56 kbps transmission paths.

11.2.2 Of the various options available, Signaling Link Transport shall perform in the following two ways:

11.2.2.1 As an "A-link" which is a connection between a switch or SCP and a home Signaling Transfer Point Switch (STPS) pair; and

11.2.2.2 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)).

11.2.3 Signaling Link Transport shall consist of two or more signaling link layers as follows:

11.2.3.1 An A-link layer shall consist of two links.

11.2.3.2 A D-link layer shall consist of four links.

11.2.4 A signaling link layer shall satisfy a performance objective such that:

11.2.4.1 There shall be no more than two minutes down time per year for an A-link layer; and

11.2.4.2 There shall be negligible (less than 2 seconds) down time per year for a D-link layer.

11.2.5 A signaling link layer shall satisfy interoffice and intraoffice diversity of facilities and equipment, such that:

11.2.5.1 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

11.2.5.2 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).

11.3 **Interface Requirements**

11.3.1 There shall be a 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.

12. **Signaling Transfer Points (STPs)**

12.1 **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.

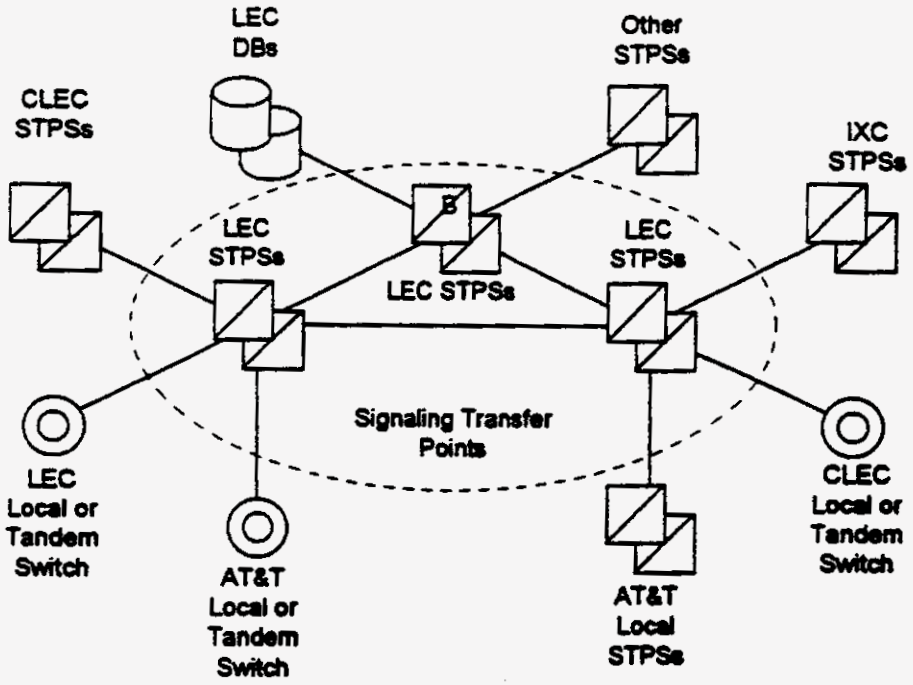

Figure 4

12.2 **Technical Requirements**

12.2.1 STPs shall provide access to all other Network Elements connected to BellSouth SS7 network. These include:

12.2.1.1 BellSouth Local Switching or Tandem Switching;

12.2.1.2 BellSouth Service Control Points/DataBases;

12.2.1.3 Third-party local or tandem switching systems; and

12.2.1.4 Third-party-provided STPSs.

12.2.2 The connectivity provided by STPs shall fully support the functions of all other Network Elements connected to BellSouth SS7 network. This

explicitly includes the use of BellSouth SS7 network to convey messages which neither originate nor terminate at a signaling end point directly connected to BellSouth SS7 network (*i.e., transient messages*). When BellSouth 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.

12.2.3 If a BellSouth 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, BellSouth 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 BellSouth STPSs.

12.2.4 STPs shall provide all functions of the MTP as specified in ANSI T1.111 (Reference 12.12.4.12.4.1). This includes:

12.2.4.1 Signaling Data Link functions, as specified in ANSI T1.111.2:

12.2.4.2 Signaling Link functions, as specified in ANSI T1.111.3; and

12.2.4.3 Signaling Network Management functions, as specified in ANSI T1.111.4.

12.2.5 STPs shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112 (Reference 12.12.4.12.4.3). 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 BellSouth local or tandem switching system or data base, or is an AT&T or third party local or tandem switching system directly connected to BellSouth 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 BellSouth SS7 network, and shall not perform SCCP Subsystem Management of the destination.

12.2.6 STPs shall also provide the capability to route SCCP messages based on ISNI, as specified in ANSI T1.118 (Reference 12.12.4.12.4.6), when this capability becomes available on BellSouth STPSs.

12.2.7 STPs shall provide all functions of the OMAP commonly provided by STPSs, as specified in the reference in Section 10.4.5. This includes:

12.2.7.1 MTP Routing Verification Test (MRVT); and,

12.2.7.2 SCCP Routing Verification Test (SRVT).

12.2.8 In cases where the destination signaling point is a BellSouth local or tandem switching system or DB, or is an AT&T or third party local or tandem switching system directly connected to the BellSouth 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 BellSouth 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 BellSouth STPSs.

12.2.9 STPs shall be equal to or better than the following performance requirements:

12.2.9.1 MTP Performance, as specified in ANSI T1.111.6; and

12.2.9.2 SCCP Performance, as specified in ANSI T1.112.5.

12.2.10 SS7 Advanced Intelligent Network (AIN) Access

12.2.10.1 SS7 AIN Access shall provide the AT&T SCP access to BellSouth local switch via interconnection of BellSouth SS7 and AT&T SS7 networks. This interconnection arrangement shall result in the BellSouth local switch recognizing the AT&T SCP as at least at parity with BellSouth SCPs in terms of interfaces, performance and capabilities.

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

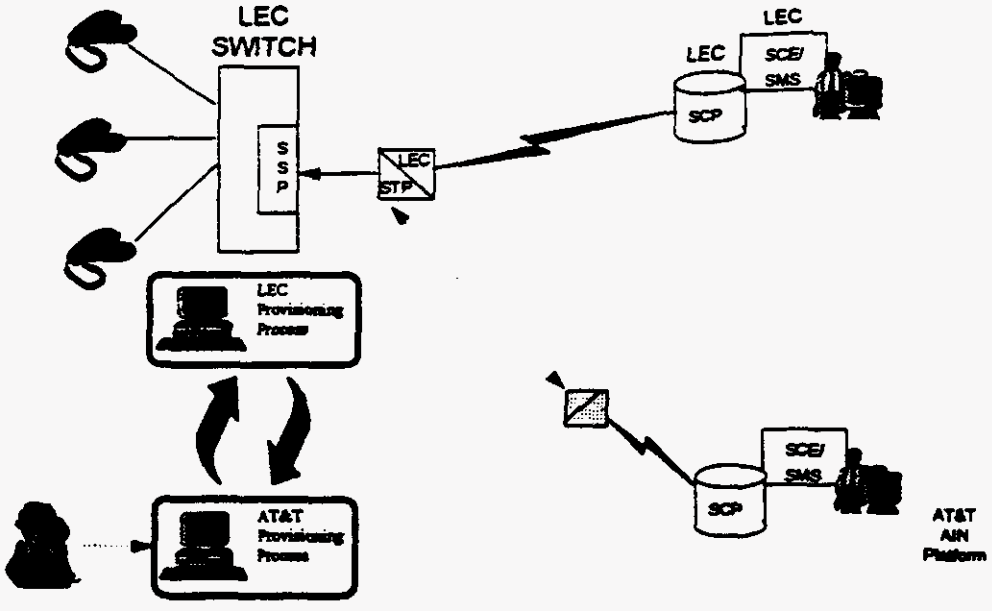

Figure 5

12.2.10.3 Physical interconnection between the BellSouth SS7 and the AT&T SS7 networks shall be through facilities and protocols as specified in the SS7 Network Interconnection section of this Agreement

12.2.10.4 Reliability of interconnection shall be consistent with requirements for diversity and survivability as specified in the SS7 Network Interconnection section of this Agreement.

12.2.10.5 Delay associated with BellSouth local switch queries to the AT&T SCP shall be equal to or shorter than the delay associated with queries to BellSouth SCP.

12.2.10.6 BellSouth 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.

12.2.10.7 BellSouth 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.

12.2.10.8 Network management controls resulting from an overload in elements not supporting AT&T customers shall not affect queries to AT&T SCPs.

12.2.10.9 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).

12.2.10.10 BellSouth 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.

12.2.10.11 When AT&T selects SS7 AIN Access, BellSouth will provide an interface to BellSouth STP provisioning process for provisioning of BellSouth STP global title translation data.

12.2.10.12 When AT&T selects SS7 AIN Access, BellSouth will provide interconnection of its SS7 network with BellSouth SS7 network for exchange of AIN TCAP messages as described in Section 10.2.10.13.2

12.2.10.13 STPs shall offer SS7 AIN Access in accordance with the requirements of the following technical references:

12.2.10.13.1 GR-2863-CORE, CCS Network Interface Specification Supporting Advanced Intelligent Network (AIN); and

12.2.10.13.2 GR-2902-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll-Free Service Using Advanced Intelligent Network (AIN).

12.3 **Interface Requirements**

12.3.1 BellSouth shall provide the following STPs options to connect AT&T or AT&T-designated local switching systems or STPSs to BellSouth SS7 network:

12.3.1.1 An A-link interface from AT&T local switching systems; and,

12.3.1.2 A D-link interface from AT&T local STPSs.

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

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

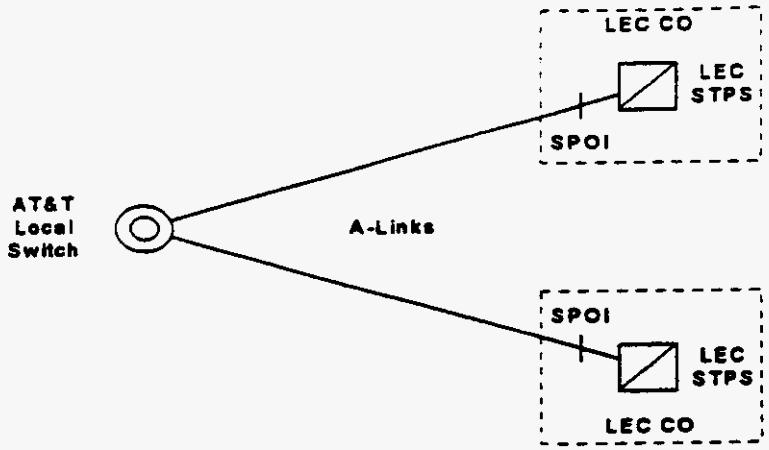

Figure 6. A-Link Interface

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

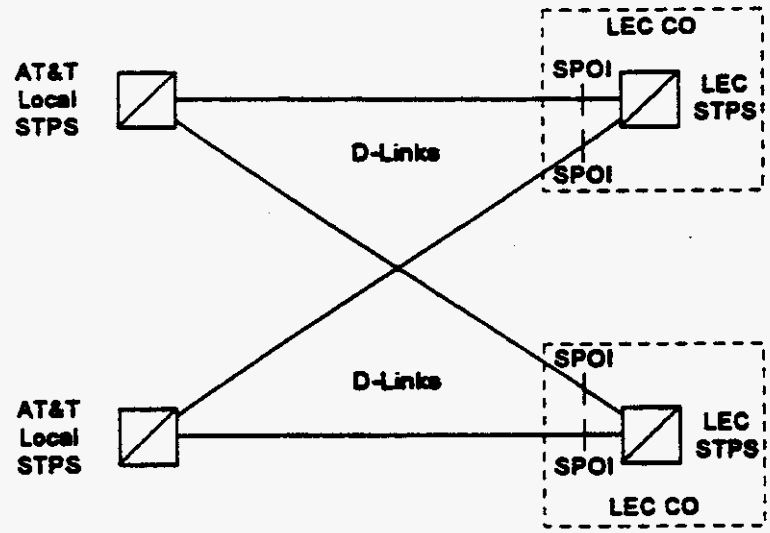

Figure 7. D-Link Interface

12.3.3 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 BellSouth 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. BellSouth shall offer higher rate DS1 signaling for interconnecting AT&T local switching systems or STPSs with BellSouth STPSs as soon as these become approved ANSI standards and available capabilities of BellSouth STPSs.

12.3.4 BellSouth CO shall provide intraoffice diversity between the SPOIs and BellSouth 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 BellSouth STPS.

12.3.5 BellSouth shall provide MTP and SCCP protocol interfaces that shall conform to all sections relevant to the MTP or SCCP in the following specifications:

12.3.5.1 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);

12.3.5.2 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

12.3.5.3 **Message Screening**

12.3.6 BellSouth shall set message screening parameters so as to accept messages from AT&T local or tandem switching systems destined to any signaling point in BellSouth SS7 network with which the AT&T switching system has a legitimate signaling relation.

12.3.7 BellSouth 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 BellSouth SS7 network with which the AT&T switching system has a legitimate signaling relation.

12.3.8 BellSouth 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 BellSouth SS7 network with which the AT&T switching system has a legitimate signaling relation.

12.3.9 BellSouth 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 BellSouth SS7 network with which the AT&T SCP has a legitimate signaling relation.

12.4 STPs shall be equal to or better than all of the requirements for STPs set forth in the following technical references:

12.4.1 ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);

12.4.2 ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;

12.4.3 ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);

12.4.4 ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;

12.4.5 ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);

12.4.6 ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);

12.4.7 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

12.4.8 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

13. **Service Control Points/Databases**

13.1 **Definition:**

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13.1.1 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.

13.1.2 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).

13.2 **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:

13.2.1 BellSouth 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.

13.2.2 BellSouth shall provide physical interconnection to databases via industry standard interfaces and protocols (e.g. ISDN and X.25).

13.2.3 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).

13.2.4 Database functionality shall be unavailable a maximum of 30 minutes per year.

13.2.5 BellSouth 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).

13.2.6 The operational interface provided by BellSouth shall complete Database transactions (i.e., add, modify, delete) for AT&T customer records stored in BellSouth databases within 24 hours, or sooner where BellSouth provisions its own customer records within a shorter interval.

13.2.7 BellSouth shall provide Database maintenance consistent with the maintenance requirements as specified in this Agreement (e.g., notification of BellSouth Network Affecting Events, testing, dispatch schedule and measurement and exception reports).

13.2.8 BellSouth 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).

13.2.9 BellSouth shall provide SCPs/Databases in accordance with the physical security requirements specified in this Agreement.

13.2.10 BellSouth shall provide SCPs/Databases in accordance with the logical security requirements specified in this Agreement.

13.3 **Local Number Portability Database**

13.3.1 **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 BellSouth provides GTT functionality in another Network Element. This Subsection 11.3 supplements the requirements of Subsection 11.2 and 11.7. BellSouth shall provide the Local Number Portability Database in accordance with the following:

13.3.2 **Requirements**

13.3.2.1 BellSouth shall make the BellSouth 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-ported 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;

13.3.2.2 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;

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13.3.2.3 BellSouth shall provide GTT for CLASS or LIDB queries routed to BellSouth network by AT&T switches. BellSouth database or other

Network Element shall perform the GTT function and route the query to the appropriate switch or LIDB accordingly;

13.3.2.4 The LNP database shall provide such other functionality as has been specified in the regulatory jurisdiction in which portability has been implemented;

13.3.2.5 Unavailability of the LNP database query and GTT applications shall not exceed 4 minutes per year; and

13.3.2.6 The BellSouth LNP database shall respond to a query within 125 msec. of receipt of the query.

13.3.3 **Interface Requirements**

BellSouth 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.]).

13.4 **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.

13.4.1 **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 BellSouth 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.

13.4.2 **Technical Requirements**

13.4.2.1 Prior to the availability of a long-term solution for Local Number Portability, BellSouth shall enable AT&T to store in BellSouth'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.

13.4.2.2 Prior to the availability of a long-term solution for Local Number Portability, BellSouth shall enable AT&T to store in BellSouth'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.

13.4.2.3 Subsequent to the availability of a long-term solution for Local Number Portability, BellSouth shall enable AT&T to store in BellSouth'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.

13.4.2.4 BellSouth 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:

13.4.2.4.1 Billed Number Screening (provides information such as whether the Billed Number may accept Collect or Third Number Billing calls); and

13.4.2.4.2 Calling Card Validation

13.4.2.5 BellSouth shall process AT&T's customer records in LIDB at least at parity with BellSouth customer records, with respect to other LIDB functions (as defined in the technical reference in Section 11.7.5). BellSouth shall indicate to AT&T what additional functions (if any) are performed by LIDB in their network.

13.4.2.6 Within two (2) weeks after a request by AT&T, BellSouth 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.

13.4.2.7 BellSouth shall provide LIDB systems for which operating deficiencies that would result in calls being blocked, shall not exceed 30 minutes per year.

13.4.2.8 BellSouth shall provide LIDB systems for which operating deficiencies that would not result in calls being blocked shall not exceed 12 hours per year.

13.4.2.9 BellSouth 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.

13.4.2.10 BellSouth shall provide AT&T with the capability to provision (e.g., to add, update, and delete) NPA-NXX and NXX-0/1XX Group Records, and Line Number and Special Billing Number Records, associated with AT&T customers, directly into the BellSouth's LIDB provisioning process.

13.4.2.11 In the event that end user customers changes their local service provider, BellSouth 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.

13.4.2.12 All additions, updates and deletions of AT&T data to the LIDB shall be solely at the direction of AT&T.

13.4.2.13 BellSouth shall provide priority updates to LIDB for AT&T data upon AT&T's request (e.g., to support fraud protection).

13.4.2.14 BellSouth shall provide AT&T the capability to directly obtain, through an electronic interface, reports of all AT&T data in LIDB.

13.4.2.15 BellSouth 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.

13.4.2.16 BellSouth 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.

13.4.2.17 BellSouth shall provide to AT&T access to LIDB measurements and reports at least at parity with the capability the BellSouth has for its own

customer records and that BellSouth provides to any other party. Such access shall be electronic.

13.4.2.18 BellSouth 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.

13.4.2.19 BellSouth shall prevent any access to or use of AT&T data in LIDB by BellSouth personnel or by any other party that is not authorized by AT&T in writing.

13.4.2.20 BellSouth 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 BellSouth Customer Data. BellSouth shall obtain from AT&T the screening information associated with LIDB Data Screening of AT&T data in accordance with this requirement.

13.4.2.21 BellSouth shall accept queries to LIDB associated with AT&T customer records, and shall return responses in accordance with the requirements of this Section 11.

13.4.2.22 BellSouth 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.

13.4.2.23 BellSouth 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.

13.4.2.24 BellSouth shall provide 99.9 % of all LIDB queries in a round trip within 2 seconds.

13.4.2.25 BellSouth shall provide LIDB performance that complies with the following AT&T Direct Measures of Quality (DMOQs) :

13.4.2.25.1 There shall be at least a 99.9.% reply rate to all query attempts.

13.4.2.25.2 Queries shall time out at LIDB no more than 0.1% of the time.

13.4.2.25.3 Data in LIDB replies shall have at no more than 2% unexpected data values, for all queries to LIDB.

13.4.2.25.4 No more than 0.01% of all LIDB queries shall return a missing customer record.

13.4.2.25.5 There shall be no defects in LIDB Data Screening of responses.

13.4.2.25.6 Group troubles shall occur for no more than 1% of LIDB queries. Group troubles include:

13.4.2.25.6.1 Missing Group - When reply is returned "vacant" but there is no active record for the 6-digit NPA-NXX group.

13.4.2.25.6.2 Vacant Code - When a 6-digit code is active but is not assigned to any customer on that code.

13.4.2.25.6.3 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.

13.4.3 **Interface Requirements.**
BellSouth shall offer LIDB in accordance with the requirements of this subsection 11.4.3.

13.4.3.1 The interface to LIDB shall be in accordance with the technical reference in Section 11.7.3.

13.4.3.2 The CCS interface to LIDB shall be the standard interface described in Section 11.7.3.

13.4.3.3 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.

13.5 **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. BellSouth shall provide the Toll Free Number Database in accordance with the following:

13.5.1 **Technical Requirements**

13.5.1.1 BellSouth shall make BellSouth Toll Free Number Database available for AT&T to query with a toll-free number and originating information.

13.5.1.2 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 BellSouth switch.

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

13.5.1.3.1 Network Management;

13.5.1.3.2 Customer Sample Collection; and

13.5.1.3.3 Service Maintenance

13.5.2 **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

13.6 **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. BellSouth shall provide the Emergency Services Database in accordance with the following:

13.6.1 **Technical Requirements**

13.6.1.1 BellSouth 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. BellSouth 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 BellSouth, to enter customer information into the data base on a demand basis, and validate customer information on a demand basis.

13.6.1.2 The ALI/DMS database shall contain the following customer information:

13.6.1.2.1 Name;

13.6.1.2.2 Address;

13.6.1.2.3 Telephone number; and

13.6.1.2.4 Other information as appropriate (e.g., whether a customer is blind or deaf or has another disability).

13.6.1.3 When the BellSouth 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.

13.6.1.4 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.

13.6.1.5 If BellSouth is responsible for configuring PSAP features (for cases when the PSAP or BellSouth supports an ISDN interface) it shall ensure that CLASS Automatic Recall (Call Return) is not used to call back to the ported number.

13.6.2 **Interface Requirements.**

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

13.7 SCPs/Databases shall be equal to or better than all of the requirements for SCPs/Databases set forth in the following technical references:

13.7.1 GR-246-CORE, Bell Communications Research Specification of Signaling System Number 7, ISSUE 1 (Bellcore, December 199);

13.7.2 GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP). (Bellcore, March 1994);

13.7.3 GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service 6, Issue 1, Rev. 1 (Bellcore, October 1995);

13.7.4 GR-1149-CORE, OSSGR Section 10: System Interfaces, Issue 1 (Bellcore, October 1995) (Replaces TR-NWT-001149);

13.7.5 GR-1158-CORE, OSSGR Section 22.3: Line Information Database 6, Issue (Bellcore, October 1995);

13.7.6 GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service (Bellcore, May 1995); and

13.7.7 BOC Notes on BellSouth Networks, SR-TSV-002275, ISSUE 2, (Bellcore, April 1994).

13.8 **Service Creation Environment and Service Management System (SCE/SMS) Advanced Intelligent Network (AIN) Access**

13.8.1 SCE/SMS AIN Access shall provide AT&T the ability to create service applications in BellSouth SCE and deploy those applications via BellSouth SMS to BellSouth SCP. This interconnection arrangement shall provide AT&T access to BellSouth development environment and administrative system in a manner at least at parity with BellSouth's ability to deliver its own AIN-based services. SCE/SMS AIN Access is the provisioning of AIN triggers in a BellSouth local switch, development of service applications within BellSouth Service Creation Environment, and deployment of service applications via BellSouth Service Management System. See Figure 8 below.

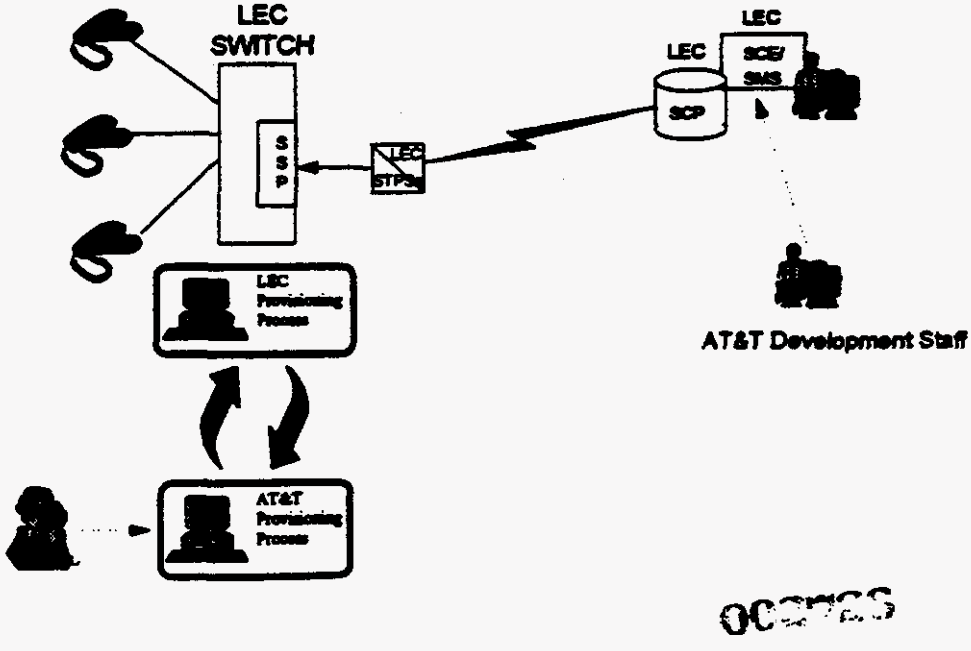

Figure 8

13.8.2 BellSouth 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 BellSouth.

13.8.3 BellSouth 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.

13.8.4 BellSouth SCP shall partition and protect AT&T service logic and data from unauthorized access, execution or other types of compromise.

13.8.5 BellSouth shall provide training, documentation, and technical support of AT&T development staff in a manner at least at parity with that provided to BellSouths own development staff. Training sessions shall be "suitcased" to AT&T facilities or delivered at BellSouth facilities, at AT&T's discretion.

13.8.6 When AT&T selects SCE/SMS AIN Access, BellSouth shall provide for a secure, controlled access environment on-site as well as via remote data connections (e.g., dial up, LAN, WAN).

13.8.7 When AT&T selects SCE/SMS AIN Access, BellSouth shall allow AT&T to download data forms and/or tables to BellSouth SCP via BellSouth SMS without intervention from BellSouth (e.g., service customization and customer subscription).

13.8.8 SCPs/Databases shall offer SCE/SMS AIN Access in accordance with the requirements of: GR-1280-CORE, AIN Service Control Point (SCP) Generic Requirements.

14. Tandem Switching

14.1 Definition

Tandem Switching is the function that establishes a communications path between two switching offices through a third switching office (the tandem switch).

14.2 Technical Requirements

14.2.1 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:

14.2.1.1 Tandem Switching shall provide signaling to establish a tandem connection;

14.2.1.2 Tandem Switching shall provide screening and routing as designated by AT&T;

14.2.1.3 Tandem Switching shall provide recording of all billable events designated by AT&T;

14.2.1.4 Tandem Switching shall provide Advanced Intelligent Network triggers supporting AIN features;

14.2.1.5 Tandem Switching shall provide connectivity to Operator Systems as designated by AT&T;

14.2.1.6 Tandem Switching shall provide access to Toll Free number portability database as designated by AT&T;

14.2.1.7 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));

14.2.1.8 Tandem Switching shall provide connectivity to PSAPs where 911 solutions are deployed and the tandem is used for 911; and

14.2.1.9 Tandem Switching shall provide connectivity to transit traffic to and from other carriers.

14.2.2 Tandem Switching shall accept connections (including the necessary signaling and trunking interconnections) between end offices, other tandems, IECs, ICOs, CAPs and CLEC switches.

14.2.3 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).

14.2.4 Tandem Switching shall preserve CLASS/LASS features and Caller ID as traffic is processed. Additional signaling information and requirements are provided in Section 10.

14.2.5 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.

14.2.6 BellSouth 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.

14.2.7 BellSouth shall maintain AT&T's trunks and interconnections associated with Tandem Switching at least at parity to its own trunks and interconnections.

14.2.8 When requested by AT&T, BellSouth shall provide performance data regarding traffic characteristics or other measurable elements to AT&T for review.

14.2.9 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 BellSouth traffic (e.g., BellSouth shall not block AT&T traffic and leave its traffic unaffected or less affected).

14.2.10 Tandem Switching shall route calls to BellSouth 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 BellSouth switching network shall be mutually agreed to by AT&T and BellSouth. Such plans shall meet AT&T requirements for routing calls through the local network.

14.2.11 Tandem Switching shall process originating toll-free traffic received from an AT&T local switch.

14.2.12 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.

14.2.13 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.

14.3 **Interface Requirements**

14.3.1 Tandem Switching shall provide interconnection to the E911 PSAP where the underlying Tandem is acting as the E911 Tandem.

14.3.2 Tandem Switching shall interconnect, with direct trunks, to all carriers with which BellSouth interconnects.

14.3.3 BellSouth shall provide all signaling necessary to provide Tandem Switching with no loss of feature functionality.

14.3.4 Tandem Switching shall interconnect with AT&T's switch, using two-way trunks, for traffic that is transiting via BellSouth network to interLATA or intraLATA carriers. At AT&T's request, Tandem Switching shall record and keep records of traffic for billing.

14.3.5 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.

14.3.6 Tandem Switching shall adhere to the Trunk Interface Requirements provided in the "Network Interconnection" section.

14.4 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:

14.4.1 Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, 6/1/90;

14.4.2 GR-905-CORE covering CCSNIS;

14.4.3 GR-1429-CORE for call management features; and
GR-2863-CORE and GR-2902-CORE covering CCS AIN interconnection

15. **Additional Requirements**

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

15.1 **Cooperative Testing**

15.1.1 **Definition:**

Cooperative Testing means that BellSouth 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 BellSouth are in compliance with the requirements of this Agreement, and (2) test the overall functionality of various Network Elements and Ancillary Functions provided by BellSouth 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.

15.1.2 **Requirements**

Within sixty (60) days of the Effective Date of this Agreement, AT&T and BellSouth will agree upon a process to resolve technical issues relating to interconnection of AT&T's network to BellSouth'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 BellSouth do not reach agreement on such a process within sixty (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 163 and Attachment A of this Agreement unless both parties agree to extend the time to reach agreement on such issues.

15.1.2.1 BellSouth shall provide AT&T access for testing at any interface between a BellSouth 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.

15.1.2.2 AT&T may test any interfaces, Network Elements or Ancillary Functions and additional requirements provided by BellSouth pursuant to this Agreement.

15.1.2.3 BellSouth 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.

15.1.2.4 Upon AT&T's request, BellSouth 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.

15.1.2.5 BellSouth shall provide to AT&T upon request, any applicable test results, from BellSouth 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 BellSouth of any deficiencies that are detected.

15.1.2.6 BellSouth shall temporarily provision selected Local Switching features for testing. Within (60) days of the Effective Date of this Agreement AT&T and BellSouth shall mutually agree on the procedures to be

established between BellSouth and AT&T to expedite such provisioning processes for feature testing.

15.1.2.7 Upon AT&T's request, BellSouth shall provide technical staff to meet with AT&T representatives to provide required support for Cooperative Testing.

15.1.2.8 Dedicated Transport and Loop Feeder may experience alarm conditions due to in-progress tests. BellSouth shall not remove such facilities from service without obtaining AT&T's prior approval.

15.1.2.9 BellSouth 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 BellSouth.

15.1.2.10 BellSouth 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.

15.1.2.11 BellSouth 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.

15.1.2.12 BellSouth 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.

15.1.2.13 AT&T and BellSouth shall endeavor to complete Cooperative Testing expeditiously.

15.1.2.14 During Cooperative Testing, RLEC 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.

15.1.2.15 BellSouth 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.

15.1.2.16 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.

15.2 **Performance**

15.2.1 **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.

15.2.1.1 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.

15.2.1.2 BellSouth shall work cooperatively with AT&T to determine appropriate performance allocations across Network Elements.

15.2.2 BellSouth shall provide performance equal to or better than all of the requirements set forth in the following technical references:

15.2.3 BellSouth shall provide real-time, remote data access to performance monitoring and alarm data on events affecting (or potentially affecting) AT&T's traffic.

15.2.3.1 **Bell Communications Research, Inc. Documents**

15.2.3.1.1 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.

15.2.3.1.2 TR-NWT-000499, Issue 5, Rev 1, April 1992, *Transport Systems Generic Requirements (TSGR): Common Requirements.*

15.2.3.1.3 TR-NWT-000418, Issue 2, December 1992, *Generic Reliability Assurance Requirements For Fiber Optic Transport Systems.*

15.2.3.1.4 TR-NWT-000057, Issue 2, January 1993, *Functional Criteria for Digital Loop Carriers Systems.*

15.2.3.1.5 TR-NWT-000507, Issue 5, December 1993, *LSSGR - Transmission, Section 7.*

15.2.3.1.6 GR-303-CORE, Issue 1, September 1995, *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface.*

15.2.3.1.7 GR-334-CORE, Issue 1, June 1994, *Switched Access Service: Transmission Parameter Limits and Interface Combinations.*

15.2.3.1.8 TR-NWT-000335, Issue 3, May 1993, *Voice Grade Special Access Services - Transmission Parameter Limits and Interface Combinations.*

15.2.3.1.9 TR-TSY-000529, Issue 2, July 1987, *Public Safety - LSSGR.*

15.2.3.1.10 GR-1158-CORE, Issue 2, October 1995, *OSSGR Section 22.3: Line Information Database.*

15.2.3.1.11 TR-TSY-000511, Issue 2, July 1987, *Service Standards, a Module (Section 11) of LATA Switching Systems Generic Requirements (LSSGR, FR-NWT-000064).*

15.2.3.1.12 TR-NWT-000393, January 1991, *Generic Requirements for ISDN Basic Access Digital Subscriber Lines.*

15.2.3.1.13 TR-NWT-000909, December 1991, *Generic Requirements and Objectives for Fiber In The Loop Systems.*

15.2.3.1.14 TR-NWT-000505, Issue 3 , May 1991, *LSSGR Section 5, Call Processing.*

15.2.3.1.15 FR-NWT-000271, 1993, *Operator Services Systems Generic Requirements (OSSGR).*

15.2.3.1.16 TR-NWT-001156, Issue 2, July 1993, *OSSGR Operator Services Systems Generic Requirements, Section 21, Operator Subsystem.*

15.2.3.1.17 SR-TSY-001171, Issue 1, January 1989, *Methods and Procedures for System Reliability Analysis.*

15.2.3.1.18 Bellcore *Telecommunications Transmission Engineering*, 3rd Ed, 1990.

15.2.3.2 **ANSI Standards**

15.2.3.2.1 ANSI T1.512-1994, Network Performance - Point-to-Point Voice-Grade Special Access Network Voiceband Data Transmission Objectives.

15.2.3.2.2 ANSI T1.506-1990, Network Performance - Transmission Specifications for Switched Exchange Access Network.

15.2.3.2.3 ANSI T1.508-1992, Telecommunications - Network Performance - Loss Plan for Evolving Digital Networks. Also supplement T1.508a-1993.

15.2.3.2.4 ANSI T1.101-1994, Digital Synchronization Network Plan.

15.2.3.3 **TIA/EIA Standards**

15.2.3.3.1 Requirements not specifically addressed here shall be found in the documents listed in Electronic Industries Association/Telecommunications Industries Association Standards and Engineering Publications.

15.2.3.3.2 TIA/EIA TSB-37A, *Telephone* Network Transmission Model for Evaluating Modem Performance.

15.2.3.3.3 TIA/EIA TSB-38, Test Procedure for Evaluation of 2-wire 4 kHz Voiceband Duplex Modems.

15.2.3.4 **IEEE Standards**

15.2.3.4.1 IEEE Standard 743-1984, IEEE Standard Methods and Equipment for Measuring Transmission Characteristics of Analog Voice Frequency Circuits.

15.2.3.4.2 ANSI/IEEE Standard 820-1984, Telephone Loop Performance Characteristics.

15.2.3.5 **AT&T Standards**

15.2.3.5.1 Outside Plant Engineering Handbook, August 1994.

15.2.3.5.2 AT&T Pub. 60220, Issue 1, April 1991, 5ESS OSPS Interface Technical Specification for Domestic Toll And Assistance Applications.

15.2.3.5.3 AT&T Technical Reference TR 43202, May 1985, AT&T Analog Voice Total and Coordinated Services.

15.2.3.5.4 AT&T Technical Reference TR 41458, April 1990, Special Access Connection to the AT&T Network.

15.2.3.5.5 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.

15.2.3.5.6 AT&T Technical Reference TR 54016, September 1989, Requirements For Interfacing Digital Terminal Equipment To Services Employing The Extended Superframe Format.

15.2.3.5.7 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.

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

15.2.3.5.9 AT&T Data Communications Technical Reference TR 62310, August 1993, DS0 Digital Local Channel Description And Interface Specification. Also Addendum 2 November 1992.

15.2.3.5.10 AT&T Technical Reference TR 54014, 1992, ACCUNET T45 and T45 Reserved Services - Service Description And Interface Specification.

15.2.3.5.11 AT&T Technical Reference TR 54018, most current issue, ACCUNET T155 Service Description And Interface Specification.

15.2.4 **Services and Capabilities**

15.2.4.1 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:

15.2.4.1.1 All types of voice services.

15.2.4.1.2 All types of voice-band data modem connections up to and including 28.8 kbps V.34.

15.2.4.1.3 All types of FAX transmissions up to and including 14.4 kbps group 3.

15.2.4.1.4 All CLASS/LASS features.

15.2.4.1.5 All Operator Systems.

15.2.4.2 The following capabilities shall be provided as applicable:

15.2.4.2.1 ISDN BRI

15.2.4.2.2 ISDN PRI

15.2.4.2.3 Switched Digital Data

15.2.4.2.4 Non-Switched Digital Data

15.2.4.2.5 Any types of Video applications that a customer may order

15.2.4.2.6 Any Coin Services the customer may order

15.2.4.2.7 Frame Relay and ATM

15.2.4.2.8 Private Line Services

15.2.5 Specific Performance Requirements for Network Elements and Ancillary Functions

15.2.5.1 The following sections itemize performance parameters for Network Elements and Ancillary Functions. BellSouth 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.

15.2.5.2 **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.

15.2.5.3 **Loop Combination Architecture Constraints**

15.2.5.3.1 The following constraints will limit not only the variety of Loop Combination architectures that may be considered, but also the architectures BellSouth 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 BellSouth switch. Any exceptions to these restrictions shall be specifically requested or approved by AT&T in writing.

15.2.5.3.1.1 No more than 1 A-D conversion.

15.2.5.3.1.2 No more than 1, 2-to-4-wire hybrid.

15.2.5.3.1.3 No voice compression.

15.2.5.3.1.4 No echo cancelers or suppressers.

15.2.5.3.1.5 One digital loss pad per PBX.

15.2.5.3.1.6 No digital gain.

15.2.5.3.1.7 No additional equipment that might significantly increase intermodulation distortion.

15.2.5.4 **Transmission Impairments**

OC-3

15.2.5.4.1 **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.

15.2.5.4.1.1 **Loss**

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

15.2.5.4.1.1.2 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 ±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.

15.2.5.4.1.2 **Idle Channel Circuit Noise**

15.2.5.4.1.2.1 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.

15.2.5.4.1.2.2 Idle channel circuit noise shall be less than or equal to 18 dBrnC.

15.2.5.4.1.3 **Talker Echo**

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

15.2.5.4.1.3.2 Echo Return Loss (ERL) shall be greater than 26dB to a standard termination (900 ohms, 2.16 μFd), 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.

15.2.5.4.1.4 **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.

15.2.5.4.1.5 **Propagation and Processing Delay**

15.2.5.4.1.5.1 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.

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

15.2.5.4.1.6 **Signal-to-Noise Ratio**

15.2.5.4.1.6.1 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.

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

15.2.5.4.1.7 **C-Notched Noise**

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

15.2.5.4.1.8 **Attenuation Distortion**

15.2.5.4.1.8.1 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.

15.2.5.4.1.8.2 Attenuation distortion from the NID to the switch shall be within the range ± 0.5 dB for frequencies between 304 and 3004 Hz; from the switch to NID attenuation distortion shall be within the range ± 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.

15.2.5.4.1.9 **Envelope Delay Distortion**

15.2.5.4.1.9.1 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.

15.2.5.4.1.9.2 EDD shall be: 1704 Hz to 604 Hz -- ≤ 350 μsec.; 1704 Hz to 2804 Hz -- ≤ 195 μsec.; 1704 Hz to 204 Hz -- ≤ 580 μsec.; 1704 Hz to 3404 Hz -- ≤ 400 μsec.

15.2.5.4.1.10 **Phase Jitter**

15.2.5.4.1.10.1 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.

15.2.5.4.1.10.2 From the NID to the interexchange carrier point of termination, phase jitter shall be <1.5 ° point-to-point in the 20-300 Hz band, and <1.8° point-to-point in the 4-300 Hz. band.

15.2.5.4.1.11 **Amplitude Jitter**

15.2.5.4.1.11.1 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.

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

15.2.5.4.1.12 **Intermodulation Distortion**

15.2.5.4.1.12.1 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.

15.2.5.4.1.12.2 Both 2nd and 3rd order IMD between the NID and end office must be ≥ 52dB.

15.2.5.4.1.13 **Impulse Noise**

15.2.5.4.1.13.1 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.

15.2.5.4.1.13.2 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.

15.2.5.4.1.14 **Phase Hits**

15.2.5.4.1.14.1 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.

15.2.5.4.1.14.2 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.

15.2.5.4.1.15 **Gain Hits**

15.2.5.4.1.15.1 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.

15.2.5.4.1.15.2 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.

15.2.5.4.1.16 **Dropouts**

15.2.5.4.1.16.1 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.

15.2.5.4.1.16.2 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.

15.2.5.4.1.17 **Frequency Shift**

15.2.5.4.1.17.1 Frequency shift measures any frequency changes that occur when a signal is transmitted across a channel. It is typical 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.

15.2.5.4.1.17.2 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.

15.2.5.4.1.18 **Crosstalk**

15.2.5.4.1.18.1 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.

15.2.5.4.1.18.2 99% of Loop Combinations shall have probability ≤ 0.1% of experiencing crosstalk exceeding -65 dBm0.

15.2.5.4.1.19 **Clipping**

15.2.5.4.1.19.1 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.

15.2.5.4.1.19.2 No clipping incidents shall occur on any call.

15.2.5.4.2 **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.

15.2.5.4.2.1 **Signal Correlated Distortion**

15.2.5.4.2.1.1 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.

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

15.2.5.4.2.1.2.1 A maximum of 1 A/D conversion, using 64Kbps μ-law (μ=255) PCM;

15.2.5.4.2.1.2.2 No voice compression;

15.2.5.4.2.1.2.3 No echo cancellation; and

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

15.2.5.4.2.2 **Slips**

15.2.5.4.2.2.1 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.

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

15.2.5.4.2.3 **Digital Timing Jitter and Wander**

15.2.5.4.2.3.1 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.

15.2.5.4.2.3.2 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.

15.2.5.4.2.4 **DS-1 Errored Seconds**

15.2.5.4.2.4.1 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.

15.2.5.4.2.4.2 Each BellSouth work shall have less than 20 ESs per 24 hour period.

15.2.5.4.2.5 **DS-1 Severely Errored Seconds**

15.2.5.4.2.5.1 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.

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

15.2.5.4.2.6 **Short Failure Events**

15.2.5.4.2.6.1 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±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±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.

15.2.5.4.2.6.2 There shall be fewer than 1 SFE per month.

15.2.5.5 **Service Availability and Reliability** OC-

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.

15.2.5.5.1 **Blocked Calls**

15.2.5.5.1.1 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.

15.2.5.5.1.2 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.

15.2.5.5.2 **Blocked Dial Tone**

15.2.5.5.2.1 Blocked dial tone occurs when the subscriber does not receive dial tone within 3 seconds of going off-hook.

15.2.5.5.2.2 Customers shall not experience more than 0.1% dial tone blocking during average busy season busy hour (ABSBH).

15.2.5.5.3 **Downtime**

Downtime is the period of time that a system is in a failed state.

15.2.5.5.3.1 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.

15.2.5.5.3.2 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.

15.2.5.5.3.3 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.

15.2.5.5.3.4 There shall be no downtime due to power failures at the switch.

15.2.5.5.3.5 The probability of a stable call being cut off shall be less than 20 cutoffs per one million 1 minute calls.

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

15.2.5.5.3.7 BellSouth 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.

15.2.5.5.4 **Dial Tone Delay**

15.2.5.5.4.1 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.

15.2.5.5.4.2 The average dial-tone delay shall not exceed 0.6 seconds. At most 0.5% of calls during the average-season busy hour (ABSBH) 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.

15.2.5.5.5 **Dial Tone Removal**

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

15.2.5.5.5.2 The maximum dial tone removal interval shall be ≤ 500 milliseconds.

15.2.5.5.6 **Post Dial Delay**

15.2.5.5.6.1 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.

15.2.5.5.6.2 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.

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

15.2.5.5.6.2.1.1 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.

15.2.5.5.6.2.1.2 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.

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

15.2.5.5.6.2.2.1 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.

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

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

15.2.5.5.6.2.3.1 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.

15.2.5.5.6.2.3.2 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 ≤ 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:

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

15.2.5.5.6.2.3.2.2 Inband Multifrequency (MF) signaling protocols without a RLEC egress tandem in the connection.

15.2.5.5.6.2.3.2.3 Inband MF signaling protocols with a RLEC egress tandem in the connection.

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 ≤ 6.5 seconds.

15.2.5.5.6.2.4 **PDD2 - AT&T LSO to Operator Services**

15.2.5.5.6.2.4.1 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.

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

15.2.5.5.6.2.5.1 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.

15.2.5.5.6.2.6 **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.

15.2.5.5.6.2.7 **Impact of Local Number Portability (LNP)** 0C[illegible]

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.

15.2.5.5.6.2.8 **Custom Local Area Subscriber Services (CLASS)**

CLASS^{SM} features such as Calling Name Delivery can contribute to the PDD of a call. This delay is caused by the additional time (RLEC 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^{SM} 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.

15.2.5.5.6.2.9 **Partial Dial Timing**

15.2.5.5.6.2.9.1 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.

15.2.5.5.6.2.9.2 For customer lines, partial dial timing shall be ≥ 16 seconds and ≤ 24 seconds. For trunks, inband signaling time-out shall be ≥ 5 seconds and ≤ 20 seconds.

15.2.5.6 **Local Switching**

BellSouth 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 BellSouth. Additionally, post dial delay from the Operator Services to destination numbers shall be no worse than that provided by BellSouth. Post dial delay for connections to AT&T local directory services shall be no worse than directory services provided by BellSouth. Additionally, post dial delay from the directory system to destination numbers shall be no worse than that provided by BellSouth. 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 BellSouth.

15.2.5.7 **Operator Systems**

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

15.2.5.8 **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 BellSouth.

15.2.5.9 **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 BellSouth.

15.2.5.10 **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 BellSouth.

15.2.5.11 **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 BellSouth.

15.2.5.12 **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 BellSouth or other customer.

15.2.5.13 **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 BellSouth.

15.2.6 **Test and Verification**

15.2.6.1 BellSouth shall permit AT&T to confirm acceptable performance of any Network Element.

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

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

15.3 **Protection, Restoration, and Disaster Recovery**

15.3.1 **Scope:**

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

15.3.2 **Requirements**

15.3.2.1 BellSouth 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).

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

15.3.2.3 BellSouth 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.

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

15.4 **Synchronization**

15.4.1 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.

15.4.2 **Technical Requirements**

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

15.4.2.1 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.

15.4.2.2 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.

15.4.2.2.1 **Intra-Building**

15.4.2.2.1.1 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 5/8th duty cycle, return to zero with a bipolar violation every eighth pulse (B8RZ).

15.4.2.2.2 **Inter-Building**

15.4.2.2.2.1 BellSouth 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 BellSouth 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).

15.4.3 **Synchronization Distribution Requirements**

15.4.3.1 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.*

15.4.3.2 Central office BITS shall be powered by primary and backup power sources.

15.4.3.3 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.

15.4.3.4 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.

15.4.3.5 The total number of Network Elements cascaded from the stratum 1 source shall be minimized.

15.4.3.6 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).

15.4.3.7 BellSouth shall select for synchronization those facilities shown to have the greatest degree of availability (absence of outages).

15.4.3.8 Where possible, all primary and secondary synchronization facilities shall be physically diverse (this means the maximum feasible physical separation of synchronization equipment and cabling).

15.4.3.9 No timing loops shall be formed in any combination of primary and secondary facilities.

15.4.3.10 An Operations Support System (OSS) shall continuously monitor the BITS for synchronization related failures or degradation.

15.4.3.11 An OSS shall continuously monitor all equipment transporting synchronization facilities for synchronization related failures or degradation.

15.4.3.12 For non-SONET equipment, BellSouth shall provide synchronization facilities which, at a minimum, comply with the standards set forth in ANSI T1.101-1994.

15.4.3.13 For SONET equipment, BellSouth 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.

15.5 **SS7 Network Interconnection**

15.5.1 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 BellSouth STPSs. This interconnection provides connectivity that enables the exchange of SS7 messages among BellSouth switching systems and databases (DBs), AT&T local or tandem switching systems, and other third-party switching systems directly connected the to BellSouth SS7 network.

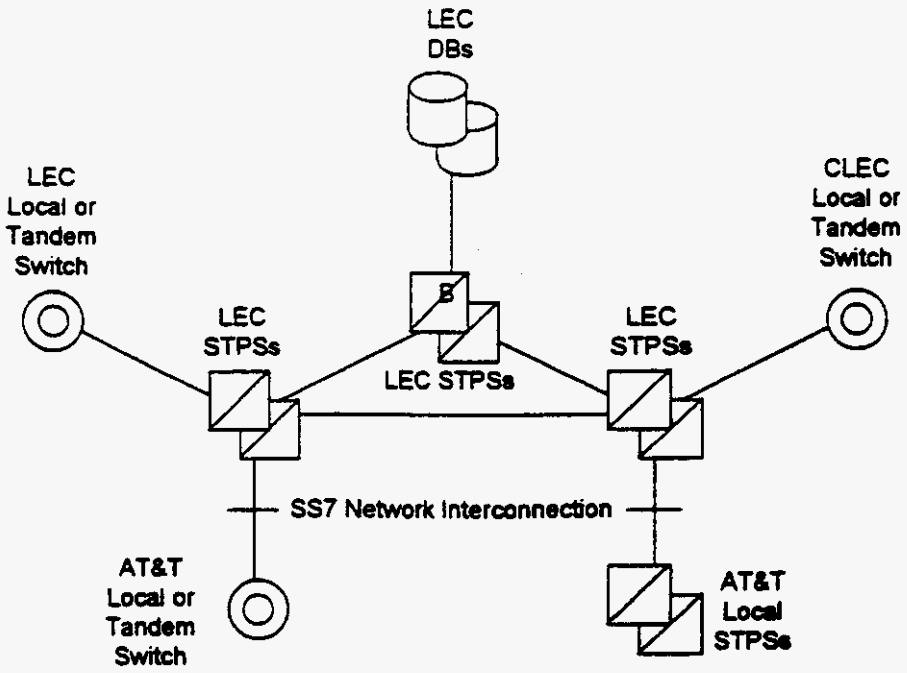

Figure 9. SS7 Network Interconnection

15.5.2 **Technical Requirements**

15.5.2.1 SS7 Network Interconnection shall provide connectivity to all components of the BellSouth SS7 network. These include:

15.5.2.1.1 RLEC local or tandem switching systems;

15.5.2.1.2 RLEC DBs; and

15.5.2.1.3 Other third-party local or tandem switching systems.

15.5.2.2 The connectivity provided by SS7 Network Interconnection shall fully support the functions of RLEC switching systems and DBs and AT&T or other third-party switching systems with A-link access to the BellSouth SS7 network.

15.5.2.3 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 RLEC or other third-party local switching system, either directly or via a RLEC tandem switching system, then it is a requirement that the BellSouth 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 BellSouth or other third-party local switch.

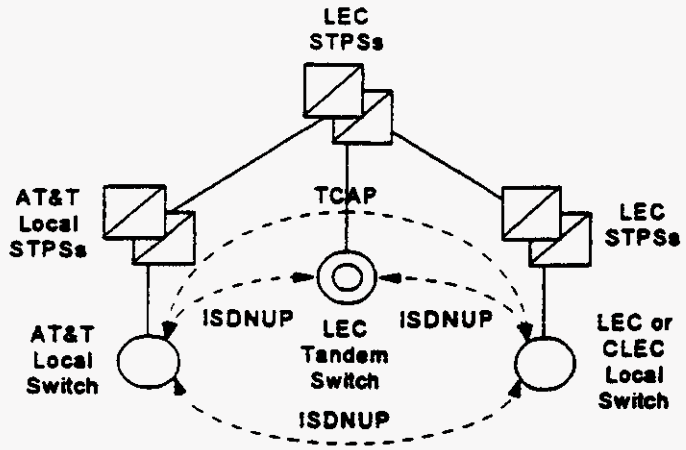

Figure 10. Interswitch TCAP Signaling for SS7 Network Interconnection

15.5.2.4 When the capability to route messages based on Intermediate Signaling Network Identifier (ISNI) is generally available on RLEC STPSs, the BellSouth SS7 Network shall also convey TCAP messages using SS7 Network Interconnection in similar circumstances where the BellSouth switch routes traffic based on a Carrier Identification Code (CIC).

15.5.2.5 SS7 Network Interconnection shall provide all functions of the MTP as specified in ANSI T1.111 (Reference 15.5.15.5.4.15.5.4.2). This includes:

15.5.2.5.1 Signaling Data Link functions, as specified in ANSI T1.111.2;

15.5.2.5.2 Signaling Link functions, as specified in ANSI T1.111.3; and

15.5.2.5.3 Signaling Network Management functions, as specified in ANSI T1.111.4.

15.5.2.6 SS7 Network Interconnection shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112 (Reference 15.5.15.5.4.15.5.4.4). 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 RLEC switching system or DB, or is another third-party local or tandem switching system directly connected to the BellSouth 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.

15.5.2.7 SS7 Network Interconnection shall provide all functions of the Integrated Services Digital Network User Part (ISDNUP), as specified in ANSI T1.113 (Reference 15.5.15.5.4.15.5.4.5).

15.5.2.8 SS7 Network Interconnection shall provide all functions of the TCAP, as specified in ANSI T1.114 (Reference 15.5.15.5.4.15.5.4.6).

15.5.2.9 If and when Internetwork MTP Routing Verification Test (MRVT) and SCCP Routing Verification Test (SRVT) become approved ANSI standards and available capabilities of RLEC STPSs, SS7 Network Interconnection shall provide these functions of the OMAP.

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

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

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

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

15.5.3 **Interface Requirements**

15.5.3.1 BellSouth 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 BellSouth SS7 network:

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

15.5.3.1.2 D-link interface from AT&T STPSs.

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

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

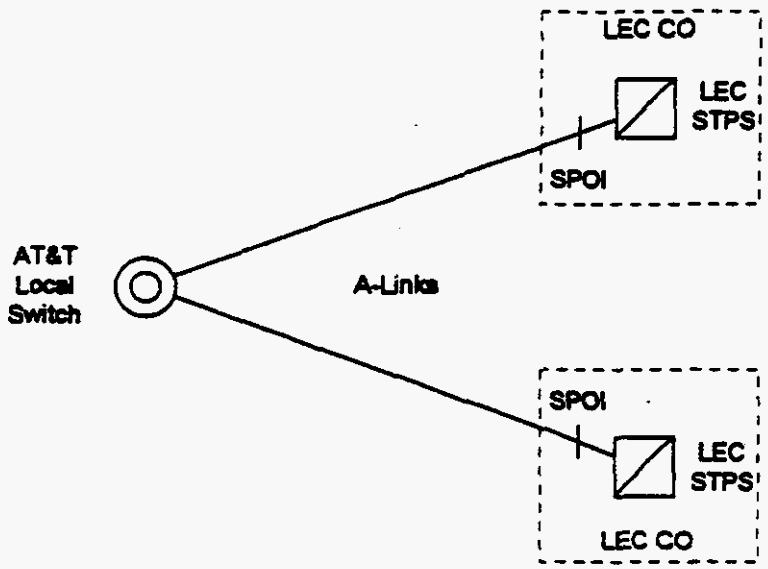

Figure 11. A-Link Interface

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

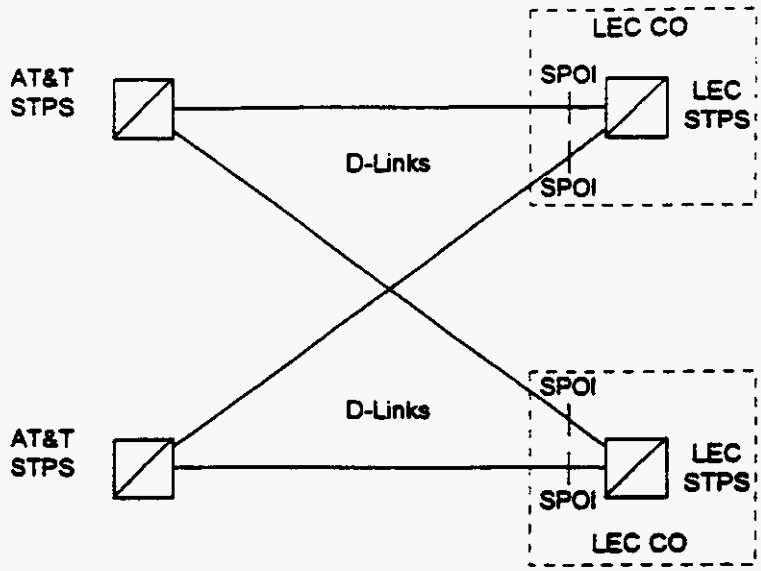

Figure 12. D-Link Interface

15.5.3.3 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 BellSouth 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. BellSouth shall offer higher rate DS1 signaling links for interconnecting AT&T local switching systems or STPSs with RLEC STPSs as soon as these become approved ANSI standards and available capabilities of RLEC STPSs.

15.5.3.4 BellSouth CO shall provide intraoffice diversity between the SPOIs and the BellSouth 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 BellSouthSTPS.

15.5.3.5 The protocol interface requirements for SS7 Network Interconnection include the MTP, ISDNUP, SCCP, and TCAP. These protocol interfaces shall conform to the following specifications:

15.5.3.5.1 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);

15.5.3.5.2 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;

15.5.3.5.3 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and

15.5.3.5.4 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

15.5.3.6 BellSouth shall set message screening parameters to block accept messages from AT&T local or tandem switching systems destined to any signaling point in the BellSouth SS7 network with which the AT&T switching system has a legitimate signaling relation.

15.5.4 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:

15.5.4.1 ANSI T1.110-1992 American National Standard Telecommunications – Signaling System Number 7 (SS7) - General Information;

15.5.4.2 ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);

15.5.4.3 ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;

15.5.4.4 ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);

15.5.4.5 ANSI T1.113-1995 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Integrated Services Digital Network (ISDN) User Part;

15.5.4.6 ANSI T1.114-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Transaction Capabilities Application Part (TCAP);

15.5.4.7 ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;

15.5.4.8 ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);

15.5.4.9 ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);

15.5.4.10 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);

15.5.4.11 Bellcore GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service;

15.5.4.12 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;

15.5.4.13 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and,

15.5.4.14 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

15.6 **Network Interconnection**

15.6.1 **Technical Requirements**

15.6.1.1 When requested by AT&T, BellSouth shall provide interconnections between BellSouth 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.

15.6.1.2 Traffic shall be combined and routed as follows:

15.6.1.2.1 BellSouth 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, BellSouth shall allow AT&T to route such traffic either directly to a RLEC tandem or directly to a RLEC end-office. At AT&T's option, intraLATA toll and local traffic shall be combined onto one truck group.

15.6.1.2.2 At AT&T's request, BellSouth shall receive AT&T traffic destined to BellSouth Operator Systems Network Element, on trunks from an AT&T end-office or an AT&T tandem.

15.6.1.2.3 At AT&T's request, BellSouth shall receive AT&T CAMA-ANI (Centralized Automatic Message Accounting - Automatic Number identification) traffic destined to BellSouth B911 PSAPs, or E911 tandems, on trunks from an AT&T end-office.

15.6.1.2.4 At AT&T's request, BellSouth shall receive AT&T SS7 traffic destined to any RLEC S911 tandem on trunks from an AT&T end-office.

15.6.1.3 When requested by AT&T and a third party carrier, BellSouth shall provide interconnections between AT&T's network, and the other carrier's network through BellSouth network at transmission rates designated by AT&T, including, but not limited to DS1, DS3, and STS-1. BellSouth shall combine and route traffic to and from other local carriers and interLATA carriers through BellSouth network, and at AT&T's request, BellSouth shall record and keep records of such traffic for AT&T billing purposes.

15.6.1.4 BellSouth shall provide two-way trunk groups for interconnections. At AT&T's request, BellSouth shall provide uni-directional traffic on such trunks, in either direction, effectively operating them as if they were one-way trunk groups.

15.6.1.5 BellSouth shall provision trunks without any user restrictions (*e.g.*, option for two-way trunking, and no unnecessary trunk group fragmentation by traffic types).

15.6.1.6 All trunking provided by BellSouth shall adhere to the applicable performance requirements set forth in the "General Performance Requirements" section of this Agreement.

15.6.1.7 At AT&T's request, BellSouth shall provide for overflow routing from a given high usage trunk group or groups onto another final tandem trunk group as AT&T designates.

15.6.1.8 BellSouth and AT&T shall agree on the establishment of two-way trunk groups for the exchange of traffic for other IXCs. These trunk groups can be provided in a "meet point" arrangement.

15.6.1.9 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 (where available), DID (Direct Inward Dialing), CAMA-ANI, and trunking necessary so that interim LNP can be provided.

15.6.1.10 **Trunk Interface Requirements**

15.6.1.10.1 **B911/E911 Trunks**

15.6.1.10.1.1 BellSouth shall allow AT&T to provide direct trunking to each RLEC B911 serving end office, or RLEC 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 BellSouth 911 end-office or tandem.

15.6.1.10.1.2 BellSouth shall provide for overflow 911 traffic to be sent to BellSouth operator services platform or, at AT&T's direction, routed directly to AT&T's operator services platform.

15.6.1.10.2 **S911 Trunks**

In areas where S911 tandems are used, BellSouth shall allow AT&T to provide direct trunking to each RLEC S911 tandem. Such SS7 trunks are to be provided as one-way trunks from a given AT&T end-office to BellSouth S911 tandem.

15.6.1.10.3 **Local Switch and Access Tandem Trunks**

15.6.1.10.3.1 BellSouth shall provide trunks groups provisioned exclusively to carry intraLATA traffic, as designated by AT&T.

15.6.1.10.3.2 BellSouth shall provide trunk groups provisioned exclusively to carry interLATA traffic, as designated by AT&T.

15.6.1.10.3.3 BellSouth shall provide SS7 trunks which provide SS7 interconnection. At AT&T's request, MF trunks may be substituted for SS7 trunks where applicable.

15.6.1.10.3.4 BellSouth 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.

15.6.1.10.4 **BellSouth Operator Services Trunk**

15.6.1.10.4.1 For traffic from BellSouth's network to AT&T for Operator Services, BellSouth shall provide one trunk group per NPA served by the local RLEC switch.

15.6.1.10.4.2 BellSouth shall provide such trunks as one-way trunks from BellSouth network to the AT&T network.

15.6.2 Network Interconnection between BellSouth and AT&T shall meet or exceed all of the requirements for Network Interconnection set forth in the following technical references:

15.6.2.1 GR-317-CORE, Switching System generic requirements for Call Control Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994;

15.6.2.2 GR-394-CORE, Switching System generic requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994;

15.6.2.3 FR-NWT-000271, OSSGR Operator Services Systems generic requirements, Bellcore, 1994 Edition; and

15.6.2.4 FR-NWT-000064, LATA Switching Systems Generic Requirements (LSSGR), Bellcore, 1994 Edition.

15.7 **Basic 911 and E911**

15.7.1 **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).

15.7.2 **Requirements**

15.7.2.1 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.

15.7.2.2 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.

15.7.2.3 If available BellSouth 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.

15.7.2.4 Basic 911 and E911 functions provided to AT&T shall be at least at parity with the support and services that BellSouth provides to its customers for such similar functionality.

15.7.2.5 Basic 911 and E911 access from Local Switching shall be provided to AT&T in accordance with the following:

15.7.2.5.1 BellSouth shall conform to all state regulations concerning emergency services;

15.7.2.5.2 BellSouth shall route calls to the appropriate PSAP.

15.7.2.5.3 For B911, BellSouth shall provide and validate customer information to the PSAPs.

15.7.2.5.4 For E911, BellSouth shall use its service order process to update and maintain customer information in the ALI/DMS data base. Through this process BellSouth shall provide and validate customer information resident or entered into the ALI/DMS data base.

15.7.2.5.5 BellSouth shall provide for overflow 911 traffic to be routed to BellSouth Operator Services or, at AT&T's discretion, directly to AT&T operator services.

15.7.2.6 Basic 911 and E911 access from the AT&T local switch shall be provided to AT&T in accordance with the following:

15.7.2.6.1 If required by AT&T, BellSouth 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.

15.7.2.6.2 For E911, BellSouth, shall provide AT&T the capability to make queries to the ALI database. BellSouth shall provide AT&T the capability to connect a data link to the ALI database. BellSouth 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 BellSouth, to enter customer information into the database on a demand basis, and validate customer information on a demand basis.

15.7.2.6.3 BellSouth shall provide AT&T with an initial Master Street and Address Guide (MSAG) (paper or magnetic tape) no later than [date to be provided] and will provide updates of this MSG quarterly.

7.1.4 A listing of all technically available functionalities for each Element or Combination; and

7.1.5 Advanced information on the details and requirement for planning and implementation of NPA splits.

7.2 Promptly after the Effective Date of this Agreement, BellSouth 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.

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

8.1 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.

8.2 AT&T and BellSouth 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.

8.3 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.

8.4 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:

8.4.1 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 BellSouth'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.

8.4.2 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.

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.

8.4.3 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).

8.4.4 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:

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

8.4.5 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.

8.4.6 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 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 Bellsouth.

8.4.7 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.

8.4.8 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.

8.4.9 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.

8.4.10 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).

8.4.11 Characteristics. For each Option, there may be multiple Characteristics that require additional details. This category identifies those Characteristics, 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).

8.4.12 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 BellSouth which of these features to activate for a specific customer.

8.4.13 Desired Due Date. This field identifies the date the entire order is expected to be completed.

8.4.14 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.

8.4.15 Remarks. This field will include any remarks that are related to the provisioning order that are not reflected elsewhere.

8.5 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 BellSouth. 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.

8.6 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.

9. Order Format and Data Elements for Combinations

9.1 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.

9.2 When ordering a Combination, AT&T will have the option of ordering all capabilities and functionalities of each of the underlying individual Elements.

9.3 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 BellSouth 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.

9.4 AT&T may also choose to purchase from BellSouth 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.

9.5 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 BellSouth requiring BellSouth 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, BellSouth 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.

9.6 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.

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

10. **Performance Requirements**

10.1 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. BellSouth 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.

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 STS-1, DS3/T3 OC-3, +	 3 5 15
SS	3
SL	2
DB	2
TS	2
C-Loop	2
C-Local Switch Conditioning Combination	20

10.2 Within two (2) business hours after a request from AT&T for an expedited order, BellSouth shall notify AT&T of BellSouth'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.

10.3 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. BellSouth will notify AT&T within two (2) Business Hours of its confirmation to complete, or not complete, the order requesting the new DDD.

10.4 AT&T and BellSouth will agree to escalation procedures and contacts. BellSouth shall notify AT&T of any modifications to these contacts within one (1) week of such modifications.

10.5 BellSouth 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.

Unbundled Network Element Provisioning Categories

1) Loop Distribution

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

Unbundled Network Element Provisioning Categories

2) Loop Concentrator/Multiplexer

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

3) Loop Feeder

Activity (one of)	*Type*	*Interconnection Location*	*Interconnection Specific*	*Element ID*	*Object (one of)*	*Option (one of)*	*Characteristics*
A,C,D,R	LF	Location CLLI CLLI/POT	CONTIGUOUS	Facility name Circuit ID	Copper	DS0 DS1	ISDN Conditioned DS1 Conditioned
					Fiber	Single mode Multi mode	Connector type

Unbundled Network Element Provisioning Categories

4) Local Switching

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

Unbundled Network Element Provisioning Categories

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

5) Operator Systems

Activity (one of)	*Type*	*Interconnection Location*	*Interconnection Specific*	*Element ID*	*Object (one of)*	*Option (one of)*	*Characteristics*
A,C,D,R	OS	Serving area (NPA-NXX, LATA, State, Rate center)	FUNCTIONALLY INCLUSIVE		Operator Services		O+ O- Busy Line Verification (BLV) Emergency Line Interrupt (ELI) 911 overflow
					Directory Assistance	Service Area Customer	411 555-1212

Unbundled Network Element Provisioning Categories

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 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 CLLI/POT	CONTIGUOUS	Facility name CLFI	DS0	No DCS D4 Channel Bank DCS 1/0	Routing Avoidance A/D Conversion Multiplexing/ De-multiplexing Format conversion Signal conversion Performance monitoring SONET to Asynch. gateway Broadcasting Mapping
					DS1	No DCS DSX DCS 1/0	Signal format (e.g. B8ZS, AMI) Framing format (e.g. ESF, D4, unframed) Multiplexing/ Demultiplexing

Unbundled Network Element Provisioning Categories

Activity (one of)	*Type*	*Interconnection Location*	*Interconnection Specific*	*Element ID*	*Object (one of)*	*Option (one of)*	*Characteristics*
						DCS 3/1	Format conversion Signal conversion Performance monitoring SONET to Asynch. gateway Broadcasting Mapping
					DS3	No DCS	Secure Interface Framing format (e.g. C-bit parity, M13, unframed)
						DSX DCS 3/1 DCS 3/3	Multiplexing/ Demultiplexing Format conversion Signal conversion Performance monitoring SONET to Asynch. gateway Broadcasting Mapping
					VT1.5		
					STSn	LGX	

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SERVICE DESCRIPTION: ANCILLARY FUNCTIONS

SERVICE DESCRIPTION: ANCILLARY FUNCTIONS

1. Introduction

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

2. Collocation -

2.1. **Definition** - Collocation means the right of AT&T to obtain dedicated space in BellSouth Local Serving Office (LSO) or other BellSouth locations and to place equipment in such spaces to interconnect with BellSouth network. Collocation also includes BellSouth providing resources necessary for the operation and economical use of collocated equipment.

2.2. Technical Requirements

2.2.1. BellSouth shall provide space, as requested by AT&T, to meet AT&T's needs for placement of equipment, interconnection, or provision of service. AT&T and BellSouth will jointly establish a written business process within ninety (90) days after the execution this Agreement by which such space can be procured.

2.2.2. BellSouth 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.

2.2.3. BellSouth agrees to allow AT&T's employees and designated agents unrestricted access to AT&T dedicated space in manned BellSouth offices twenty-four (24) hours per day each day of the week. BellSouth may place reasonable security restrictions on access by AT&T's employees and designated agents to the AT&T collocated space in unmanned BellSouth offices. Notwithstanding, BellSouth agrees that such space shall be available to AT&T's employees and designated agents twenty-four (24) hours per day each day of the week. In no case should any reasonable security restrictions be more restrictive than those BellSouth places on its own personnel.

2.2.4. 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). BellSouth shall not restrict the types of equipment or vendors of equipment to be installed.

2.2.5. BellSouth agrees to permit AT&T to interconnect its collocated facilities to those of another ALEC that is collocated in the same BellSouth office.

2.2.6. AT&T may select its own vendors for all required engineering and installation services associated with its collocated equipment (e.g., BellSouth shall not require AT&T to utilize BellSouth's internal engineering or installation work forces for the engineering and installation of AT&T's collocated equipment). Vendors utilized by AT&T must be on BellSouth's list of certified vendors.

2.2.7. BellSouth shall provide basic telephone service with a connection jack as requested by AT&T from BellSouth 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 BellSouth.

2.2.8. BellSouth 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.

2.2.9. BellSouth 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.

2.2.10. BellSouth 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.

2.2.11. BellSouth shall ensure protection of AT&T's proprietary customer information. Any collocation arrangement shall include provisions for BellSouth protecting AT&T's proprietary information.

2.2.12. BellSouth shall participate in and adhere to negotiated service guarantees, DMOQs, and ISO reviews.

2.2.13. BellSouth will complete an Environmental, Health & Safety Questionnaire for each building in which collocated space is provided. AT&T may provide this questionnaire with its collocation request and BellSouth shall return it to AT&T with the collocation application response.

2.2.14. BellSouth shall provide AT&T with written notice five (5) business days prior to those instances where BellSouth 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. BellSouth will inform AT&T by telephone of any emergency related activity that BellSouth 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.

2.2.15. BellSouth shall construct the collocated space in compliance with AT&T's collocation request for cable holes, ground bars, doors, and convenience outlets. Any deviation to AT&T's request will be jointly negotiated with BellSouth.

2.2.16. AT&T and BellSouth will complete an acceptance walk through of all collocated space requested from BellSouth. Exceptions that are noted during this acceptance walk through shall be corrected by BellSouth within five (5) days after the walk through. The correction of these exceptions from the original collocation request shall be at BellSouth's expense.

2.2.17. BellSouth 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 BellSouth Point of Termination Bay(s) to AT&T within five (5) days of acceptance of AT&T's request for collocated space.

2.2.18. BellSouth 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 five (5) days of the acceptance 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.

2.2.19. BellSouth 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.

2.2.20. BellSouth 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.

2.2.21. AT&T shall be compensated by BellSouth for any delays in the negotiated completion and turnover dates which create expenditures or delays to AT&T. The liquidated damages for this delay will be $1,000 for each day the turnover date is delayed.

2.2.22. BellSouth shall provide the following information to AT&T within five (5) business days of receipt of a written request from AT&T:

2.2.22.1. Work restriction guidelines.

2.2.22.2. BellSouth or industry technical publication guidelines that impact the design of BellSouth collocated equipment.

2.2.22.3. BellSouth contacts (names and telephone numbers) for the following areas:

Engineering
Physical & Logical Security
Provisioning
Billing
Operations
Site and Building Managers
Environmental and Safety

2.2.22.4. Escalation process for BellSouth representatives (names, telephone numbers and the escalation order) for any disputes or problems that might arise pursuant to AT&T's collocation.

2.2.23. Power as referenced in this document refers to any electrical power source supplied by BellSouth for AT&T equipment. It includes all superstructure, infrastructure, and overhead

facilities, including, but not limited to, cable, cable racks and bus bars. BellSouth will supply power to support AT&T equipment at equipment specific DC and AC voltages. At a minimum, BellSouth shall supply power to AT&T at parity with that provided by BellSouth to itself or to any third party. If BellSouth's performance, availability, or restoration falls below industry standards, BellSouth shall bring itself into compliance with such industry standards as soon as technologically feasible.

2.2.23.1. Central office power supplied by BellSouth 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.

2.2.23.2. BellSouth shall provide power as requested by AT&T to meet AT&T's need for placement of equipment, interconnection, or provision of service.

2.2.23.3. BellSouth power equipment supporting AT&T's equipment shall:

2.2.23.3.1. 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;

2.2.23.3.2. 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 BellSouth equipment;

2.2.23.3.3. Provide, upon AT&T's request, the capability for real time access to performance monitoring and alarm data that impacts (or potentially may impact) AT&T traffic;

2.2.23.3.4. 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

2.2.23.3.5. Provide feeder capacity and quantity to support the ultimate equipment layout for AT&T equipment in accordance with AT&T's collocation request.

2.2.23.3.6. BellSouth shall, within ten (10) days of AT&T's request:

2.2.23.3.6.1. 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);

2.2.23.3.6.2. Provide an installation sequence and access that will allow installation efforts in parallel without jeopardizing personnel safety or existing AT&T services;

2.2.23.3.6.3. Provide power plant alarms that adhere to Bell Communication Research (Bellcore) Network Equipment-Building System (NEBS) standards TR-EOP-000063;

2.2.23.3.6.4. Provide cabling that adheres to Bell Communication Research (Bellcore) Network Equipment-Building System (NEBS) standards TR-EOP-000063; and

2.2.23.3.6.5. Provide Lock Out-Tag Out and other electrical safety procedures and devices in conformance with the most stringent of OSHA or industry guidelines.

2.2.23.3.7. BellSouth 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 BellSouth facility. BellSouth shall provide AT&T immediate notification by

telephone of any emergency power activity that would impact AT&T equipment.

2.3. **Technical References** - BellSouth shall provide collocation in accordance with the following standards:

2.3.1. 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.

2.3.2. National Electrical Code (NEC) use latest issue.

2.3.3. TA-NPL-000286, NEBS Generic Engineering Requirements for System Assembly and Cable Distribution, Issue 2, (Bellcore, January 1989).

2.3.4. TR-EOP-000063 Network Equipment-Building System (NEBS) Generic Equipment Requirements, Issue 3, March 1988.

2.3.5. TR-EOP-000151, Generic Requirements for 24-, 48-, 130-, and 140- Volt Central Office Power Plant Rectifiers, Issue 1, (Bellcore, May 1985).

2.3.6. TR-EOP-000232, Generic Requirements for Lead-Acid Storage Batteries, Issue 1 (Bellcore, June 1985).

2.3.7. 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).

2.3.8. TR-NWT-000295, Isolated Ground Planes: Definition and Application to Telephone Central Offices, Issue 2, (Bellcore, July 1992).

2.3.9. TR-NWT-000840, Supplier Support Generic Requirements (SSGR), (A Module of LSSGR, FR-NWT-000064), Issue 1, (Bellcore, December 1991).

2.3.10. TR-NWT-001275 Central Office Environment Installations/Removal Generic Requirements, Issue 1, January 1993.

2.3.11. Underwriters' Laboratories Standard, UL 94.

3. **Rights of Way (ROW), Conduits, Pole Attachments**

3.1. **Definitions**

3.1.1. 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.

3.1.2. 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 pole attachment is the connection of a facility to a utility pole. Some examples of facilities are mechanical hardware, grounding and transmission cable, and equipment boxes.

3.2. **Requirements**

3.2.1. BellSouth shall make ROW, conduit and pole attachments available to AT&T through agreements.

3.2.2. BellSouth will complete an Environmental, Health and Safety Questionnaire for each Work Location AT&T requests or BellSouth suggests as a site to be covered under such ROW, conduit or pole attachment agreement. BellSouth shall return the questionnaire to AT&T within ten (10) days and shall assist AT&T, at AT&T's cost, with any further inquiries (such as Phase I or Phase II site assessments) AT&T may desire to make into environmental, health or safety conditions at the Work Location.

3.2.3. BellSouth shall not prevent or delay any third party assignment of ROW to AT&T.

3.2.4. BellSouth shall offer the use of such ROWs it has obtained from a third party to AT&T, to the extent such agreement does not prohibit BellSouth from granting such rights to AT&T.

3.2.5. BellSouth shall provide AT&T equal and non-discriminatory access to poles, ducts, conduit, entrance facilities, ROW and any other pathways on terms and conditions equal to that provided by BellSouth to itself or to any other party. Further, BellSouth shall not preclude or delay allocation of these facilities

to AT&T because of the potential needs of itself or of other parties.

3.2.6. Pole attachments will be placed in the space on the pole designated for communications use. This space is generally located below electric supply circuits and excludes the neutral space between the electrical and communication space. BellSouth shall make this space available for AT&T use.

3.2.7. BellSouth shall not attach, or permit other entities to attach facilities on existing AT&T facilities without AT&T's prior written consent.

3.2.8. BellSouth agrees to produce current detailed engineering and other plant records and drawings of conduit, poles and other ROW, within a reasonable time frame, which in no case shall exceed two (2) business days following AT&T's request for access to such detailed engineering and other plant records and drawings of additional conduit, poles and other ROW in selected areas as specified by AT&T. Such information shall be of equal type and quality as that of BellSouth's own engineering and operations staff. BellSouth shall also allow personnel designated by AT&T to examine such engineering records and drawings at BellSouth Central Offices and BellSouth Engineering Offices on a demand basis.

3.2.9. BellSouth shall provide to AT&T a Single Point of Contact for negotiating all structure lease and ROW agreements.

3.2.10. BellSouth shall provide information regarding the availability and condition of conduit or pole attachments within five (5) business days of AT&T's request if the information then exists in the BellSouth's's records (a records based answer) and ten (10) business days of AT&T's request if BellSouth must physically examine the conduit or pole attachments (a field based answer). AT&T shall have the option to be present at the field based survey and BellSouth shall provide AT&T at least twenty-four (24) hours notice prior to the start of such field survey. During and after this period, BellSouth 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.

3.2.11. BellSouth shall make conduit and pole space available to AT&T within twenty (20) business days after they receive written confirmation from AT&T that the space previously deemed available by BellSouth is wanted for use by AT&T. BellSouth agrees to limit its reservation period of conduits and pole space to one year plus maintenance spares.

3.2.12. BellSouth shall relocate existing pole attachments where necessary and feasible to provide space for AT&T's pole attachment requirements. The parties shall endeavor to mutually agree upon the time frame for the completion of such work within five (5) days following AT&T's requests of this work. If such agreement does not occur within five (5) days, the matter may be submitted according to the Alternate Dispute Resolution Process, described in Attachment 1. by either party.

3.2.13. AT&T may, at its option, make pole attachments and use AT&T or AT&T-designated personnel to attach its equipment to BellSouth poles.

3.2.14. BellSouth shall complete any work (also referred to as make ready work) required on pole or conduit structures to enable AT&T to install its facilities on these structures. This work shall be accomplished within a reasonable time frame to be agreed upon by BellSouth and AT&T. BellSouth and AT&T shall endeavor to agree on this time frame within five (5) days after AT&T requests this structure for use. If such agreement does not occur within five (5) days, the matter may be escalated according to the Alternate Dispute Resolution Process, described in Attachment 1, by either party.

3.2.15. BellSouth shall provide AT&T space in manholes for racking and storage of cable and other materials as requested by AT&T.

3.2.16. BellSouth shall remove 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 to such interval, the matter may be submitted according to the Alternate Dispute Resolution Process, described in Attachment 1, by either party.

3.2.17. Where BellSouth has spare inner ducts which are not, at that time, being used for providing its services, BellSouth shall offer such ducts for AT&T's use. BellSouth shall not reserve more than one inner duct in any conduit cross section for emergency purposes. Where only two inner ducts remain available

(including an emergency spare), BellSouth shall offer AT&T the use of at least one inner duct. BellSouth agrees to limit its reservation period of inner ducts to one year plus maintenance spares.

3.2.18. Where a spare inner duct does not exist, BellSouth shall allow AT&T to install an inner duct in a spare BellSouth conduit.

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

3.2.19.1. The right to use any spare metallic and fiber optic cabling within the building or building complex;

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

3.2.19.3. The right to use any available space owned or controlled by BellSouth in the building or building complex to install AT&T equipment and facilities;

3.2.19.4. Ingress and egress to such space; and

3.2.19.5. The right to use electrical power at parity with BellSouth's rights to such power.

4. Unused Transmission Media

4.1. Definitions:

4.1.1. 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.

4.1.2. 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.

4.2. **Requirements**

4.2.1. BellSouth shall offer all Unused Transmission Media to AT&T under a lease agreement.

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

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

4.2.4. BellSouth 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.

4.2.5. BellSouth 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 BellSouth 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.

4.3. **Requirements Specific to Dark Fiber**

4.3.1. 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.

4.3.2. AT&T may splice and test Dark Fiber leased from BellSouth using AT&T or AT&T designated personnel. BellSouth shall provide appropriate interfaces to allow splicing and testing of Dark Fiber. BellSouth 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.

4.3.3. For WDM applications, BellSouth 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.

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Provisioning and Ordering

1. Network Deployment

1.1 BellSouth 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 BellSouth is required to offer to AT&T pursuant to this Agreement.

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 BellSouth may deploy) that BellSouth provides to AT&T under this Agreement shall be in accordance with standards or other measurements that are at least equal to the highest level that BellSouth provides or is required to provide by law, it's own internal procedures, or the DMOQs set forth in this Agreement. .

3. General Provisioning Requirements

3.1 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.

3.2 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.

3.3 Multiple individual Elements may be ordered by AT&T from BellSouth on a single order without the need to have AT&T send an order for each Element.

3.4 BellSouth 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 BellSouth to provide Sunday, holiday, and/or off-hour provisioning services. If AT&T requests that BellSouth perform provisioning services at times or on days other than as required in the preceding sentence, BellSouth shall quote, within one (1) day of the request, a cost-based rate for such services. If AT&T accepts BellSouth quote, BellSouth shall perform such provisioning services.

3.5 BellSouth shall provide a Single Point of Contact (SPOC) for all ordering and provisioning contacts and order flow involved in the purchase and

provisioning of the BellSouth's unbundled Elements or Combinations. The SPOC shall provide an electronic 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.

3.6 BellSouth and AT&T shall jointly establish interface contingency and disaster recovery plans for the ordering and provisioning of BellSouth's unbundled Elements or Combinations.

3.7 BellSouth 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.

4. Specific Provisioning Process Requirements

4.1 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 BellSouth switch (e.g., BRCS, CLASS, and LASS features).

4.2 When requested by AT&T, BellSouth will schedule installation appointments (BellSouth employee dispatch) with the BellSouth representative on the line with AT&T's representative or provide AT&T access to BellSouth's scheduling system. BellSouth will provide appropriate training for all its employees who may interface with AT&T's Customers based on AT&T's instructions and materials.

4.3 Upon request from AT&T, BellSouth 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 the BellSouth's directory. This message shall be approved by AT&T and shall be similar in format to the intercept referral messages currently provided by BellSouth for its own end-users.

4.4 BellSouth will provide AT&T with a Firm Order Confirmation (FOC) for each order, within twenty-four (24) hours of BellSouth'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 BellSouth naming convention applied to that Element or Combination), features, options, physical interconnection, quantity, and the BellSouth commitment date for order completion (Committed Due Date).

4.5 Upon work completion, BellSouth will provide AT&T electronically (unless otherwise notified by AT&T) with an Order Completion per order that states when that order was completed. BellSouth 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.

4.6 BellSouth 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. BellSouth shall provide these test results to AT&T at the same time BellSouth provides its order-specific Order Completion.

4.7 As soon as identified, BellSouth 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.

4.8 As soon as identified, BellSouth shall provide notification electronically (unless otherwise notified by AT&T) of any instances when BellSouth's Committed Due Dates are in jeopardy of not being met by BellSouth on any element or feature contained in any order for Network Elements or Combinations. BellSouth shall concurrently indicate its new committed due date.

4.9 Within twenty-four (24) hours of AT&T's request, BellSouth 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.

4.10 BellSouth will provide AT&T and its customers with Directory Listings as specified in the General Terms and Conditions of this Agreement.

4.11 BellSouth 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.

4.12 AT&T may choose between SCE/SMS AIN Access and SS7 AIN Access as designated on AT&T's provisioning order.

4.13 BellSouth 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.

4.14 BellSouth 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. BellSouth shall provide AT&T the capability to make queries on a demand basis to such database.

4.15 BellSouth shall provision AIN triggers as requested by AT&T on its provisioning order.

5. **General Ordering Requirements**

5.1 Upon AT&T's request through a Suspend/Restore Order, BellSouth shall suspend or restore the functionality of any Network Element or Combination. BellSouth 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.

5.2 BellSouth 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.

5.3 When ordering a Local Switching Element, AT&T may order from BellSouth separate interLATA and intraLATA capabilities (i.e., 2 PICs where available) on a line or trunk basis.

5.4 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.

5.5 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.

6. **Ordering Interfaces**

6.1 BellSouth 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 gateway that will serve as a single point of contact for the transmission of such data from AT&T to BellSouth, and from BellSouth o AT&T. The requirements and implementation of such a data transfer system are subject to future agreement by AT&T and BellSouth . Until such time as a

gateway is established, the EI to be used shall be the same EI as is currently utilized by BellSouth , as may be modified during the interim period.

6.2 When ordering a Local Switching Element, AT&T's representatives will have real-time access to BellSouth customer information systems which will allow the AT&T representatives to perform the following tasks:

6.2.1 Obtain customer profile, including customer name, billing and residence address, billed telephone numbers, and identification of features and services subscribed to by customer;

6.2.2 Obtain information on all features and services available, in end-office where customer is provisioned;

6.2.3 Enter the order for the desired features and services;

6.2.4 Provide an assigned telephone number (if the customer does not have one assigned). Reservation and aging of these numbers remain BellSouth's responsibility;

6.2.5 Establish the appropriate directory listing;

6.2.6 Determine if a service call is needed to install the line or service;

6.2.7 Provide service availability dates to the customer;

6.2.8 Provide information regarding dispatch/installation schedule, if applicable;

6.2.9 Order intraLATA toll and access to long distance service in a single, unified order;

6.2.10 Suspension, termination, or restoral of service.

7. **BellSouth Provision of Information**

7.1 BellSouth shall provide to AT&T upon request:

7.1.1 A list of all services and features technically available from each switch that BellSouth may use to provide a Local Switching Element, by switch CLLI;

7.1.2 A listing by street address detail, of the service coverage area of each switch CLLI;

7.1.3 All engineering design and layout information for each network Element and Combination;

Unbundled Network Element Provisioning Categories

8) Signal Transfer Points

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

9) Signaling Link Transport

Activity (one of)	*Type*	*Interconnection Location*	*Interconnection Specific*	*Element ID*	*Object (one of)*	*Option (one of)*	*Characteristics*
A,C,D,R	SL	Location CLLI CLLI/POT	CONTIGUOUS	Facility name Circuit ID	Pair	DS0 DS1	
					Quad	DS0 DS1	

Unbundled Network Element Provisioning Categories

10) SCPs/Databases

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

Unbundled Network Element Provisioning Categories

11) Tandem Switching

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

Unbundled Network Element Provisioning Format

Example 1

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

Order Activity:	A	***Order Activity Description:***	**Modify** __X___ **Cancel** _____ **Expedite** _____ **Suspend** _____ **Restore** _____ **Sequence** _____ **Coordinated** _____ **Associated Order(s):**
		Type Element/Comb:	E - DT
		Interconnection Location:	**From:** [Customer prem CLLI] **To:** [AT&T CFA T3 slot]
		Interconnection Specific:	CONTIGUOUS
Desired Due Date:	11/03/96	***Due Date Details:***	
		Remarks:	Order modified to reflect different CFA assignment

Element/Combination: DT - Dedicated Transport

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

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

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

Element/Combination: LS - Local Switching

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

Unbundled Network Element Provisioning Format

Example 3

Purpose of Order: Suspend Local Switching functionality

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

Element/Combination: LS - Local Switching

Element ID:	WTN
Object:	Line
Qty/Capacity:	1
Option:	POTS
Characteristics:	
Features:	

Unbundled Network Element Provisioning Format

Example 4

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

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

Element/Combination: SS -Signal Transfer Points

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

Unbundled Network Element Provisioning Format

Example 5

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

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

Element/Combination: DB - SCPs/Database

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

Unbundled Network Element Provisioning Format

Example 6

Purpose of Order: Disconnect Local Switching

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

Element/Combination: LS - Local Switching

Element ID:	WTN
Object:	Line
Qty/Capacity:	1
Option:	POTS
Characteristics:	
Features:	

Unbundled Combination Provisioning Format

Loop Combination Functionality

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

Unbundled Combination Provisioning Format

Example 1

Purpose of Order: LOOP Combination - Add ISDN Loop Combination

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

Element/Combination: LOOP - Loop

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

Unbundled Combination Provisioning Format

Example 2

Purpose of Order: LOOP and Switching Combination

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

Element/Combination: LOOP - Loop

Element ID:	[LEC will return loop ID]
Object:	Analog
Qty/Capacity:	1
Option:	2-wire
Characteristics:	Interface: Analog
Features:	

Element/Combination: LS - Local Switching

Element ID:	[LEC Switch CLLI]
Object:	LNP
Qty/Capacity:	N/A
Option:	RCF
Characteristics:	[Shadow number] Number of call paths: 2
Features:	

Unbundled Combination Provisioning Format

Example 3

Purpose of Order: Local Switching Conditioning Combination

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

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

Element/Combination: DT - Dedicated Transport

Element ID:	[LEC will return facility name, CLFI]
Object:	DS1
Qty/Capacity:	1
Option:	Framing: ESF
Characteristics:	Signal: B8ZS
Features:	

Element/Combination: LS - Local Switching

Element ID:	[LEC will return TSG designation]
Object:	Network Trunk
Qty/Capacity:	24
Option:	SS7
Characteristics:	Two-way [Screening] [TSG characteristics] [Routing]
Features:	

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

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

Element/Combination: DT - Dedicated Transport

Element ID:	[LEC will return facility name, CLFI]
Object:	DS1
Qty/Capacity:	2
Option:	Framing: D4
Characteristics:	Signal: B8ZS
Features:	

Element/Combination: LS - Local Switching

Element ID:	[LEC will return TSG designation]
Object:	Network Trunk
Qty/Capacity:	48
Option:	SS7
Characteristics:	One-way (out from LEC switch) [Screening] [TSG characteristics]
Features:	

MAINTENANCE

1. BellSouth 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. BellSouth will provide AT&T with at least the capability to provide an AT&T customer the same experience as BellSouth provides its own customers. This capability shall be in accordance with standards or other measurements that are at least equal to the highest level that BellSouth provides or is required to provide by law or its own internal procedures.

2. BellSouth 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. BellSouth shall cooperate with AT&T to establish a real-time, Electronic Interface for gateway or automated access by AT&T to BellSouth'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: (i) the ability to enter a new trouble ticket into the BellSouth maintenance system for an AT&T Customer; (ii) the ability to retrieve and track current status on all AT&T Customer repair tickets; (iii) the ability to receive "estimated time to repair" ("ETTR") on a real-time basis; (iv) 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 (v) 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).

3.1 BellSouth agrees to develop and implement as soon as is practicable, but no later than March 31, 1997, the electronic gateway described above into BellSouth's systems in a manner to provide AT&T with the capability to provide an AT&T customer the same maintenance service experience as BellSouth provides its own customers.

3.1.1 Until the electronic interface exists, BellSouth agrees that AT&T will transmit repair calls to BellSouth's repair bureau by telephone. In this interim process, the following standards and procedures will apply:

3.1.2 BellSouth agrees that AT&T will report troubles directly to BellSouth's Business Repair Center and/or Residence Repair Center.

3.1.3 BellSouth will perform all testing for Resold Local Services. BellSouth will provide test results, if appropriate, for trouble clearance. In all instances, BellSouth will provide AT&T with the disposition of that particular trouble.

3.1.4 BellSouth will provide AT&T the ability to obtain the status on open maintenance trouble tickets via telephone. BellSouth agrees to provide the status for residence and small business customers upon AT&T's request, in an expedient manner, with standards to be negotiated in the workcenter interface agreement.

3.1.5 BellSouth agrees to provide the status for open maintenance trouble tickets proactively to AT&T for large business customers. Guidelines for status on open maintenance trouble tickets for large business customers will be documented in the work center interface agreement.

3.1.6 BellSouth agrees that AT&T may call BellSouth to verify central office features and functions as they relate to an open trouble ticket. BellSouth agrees to work with AT&T on the initial trouble report to isolate the cause of the trouble and where possible, resolve the feature/function related trouble at that time.

3.1.7 BellSouth agrees to advise AT&T of any central office failure that is known at the time of any inquiry or trouble report. BellSouth agrees to continue to work with AT&T toward implementing a process to meet AT&T's requirements for notification of switch failures by March 31, 1997.

3.1.8 BellSouth agrees to provide an Estimated Time To Repair (ETTR) on all residence and small business trouble reports.

3.1.9 BellSouth agrees to develop, with AT&T's cooperation, mutually acceptable workcenter interface agreements to document the methods and procedures for the interim interface to be completed no later than September 1, 1996.

3.1.10 All BellSouth 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: (1) BellSouth technicians shall provide repair service that is at least equal in quality to that provided to BellSouth customers; (2) trouble calls from AT&T Customers shall receive response time priority that is at least equal to that of BellSouth customers and

shall be handled on a "first come first served" basis regardless of whether the customer is an AT&T Customer or an BellSouth customer.

4. BellSouth 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. BellSouth 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.

5. BellSouth shall advise AT&T of all non-scheduled maintenance, testing, monitoring, and surveillance activity to be performed by BellSouth on any network element, including, without limitation, any hardware, equipment, software, or system, providing service functionality which may potentially impact AT&T Customers. BellSouth shall provide the maximum advance notice of such non-scheduled maintenance and testing activity possible, under the circumstances; provided, however, that BellSouth 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.

6. BellSouth 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 BellSouth 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.

7. BellSouth and AT&T shall establish mutually acceptable methods and procedures for the immediate, on-line transfer from BellSouth to AT&T, and vice versa, of any and all misdirected calls from customers requesting repair.

8. BellSouth 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:

8.1 If service is provided to AT&T Customers before an Electronic Interface is established between AT&T and BellSouth, AT&T will transmit repair calls to the BellSouth repair bureau by telephone. In such event, the following standards shall apply: The BellSouth 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.

8.2 The BellSouth 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.

8.3 The BellSouth repair bureau shall provide to AT&T the "estimated time to restore," with at least ninety-seven percent (97%) percent accuracy.

8.4 In the event the "estimated time to restore" has been missed, BellSouth shall notify AT&T to that effect within one (1) hour.

8.5 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.

8.6 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 an BellSouth 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. Total outages requiring a premises visit by a BellSouth 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. Total outages which do not require a premises visit by a BellSouth 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.

8.7 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.

8.8 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 BellSouth repair bureau relating to the same telephone line during the current and previous report months.

8.9 BellSouth shall inform AT&T within ten (10) minutes of restoration of Local Service Network Element or Combination after an outage has occurred.

8.10 BellSouth agrees to use its best efforts to become certified under and adhere to ISO 9000 Standards and Certification.

8.11 BellSouth shall provide AT&T with escalation procedures to be followed if, in AT&T's judgment, 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 BellSouth management personnel who are responsible for maintenance issues.

8.12 In the event BellSouth shall fail to conform to the aforementioned performance and service quality standards, AT&T may request, and BellSouth shall perform, a root cause analysis of the reason behind BellSouth's failure to

conform, and BellSouth shall correct said cause as soon as reasonably practical, at its own expense.

8.13 Maintenance charges for premises visits by BellSouth technicians shall be billed by AT&T to its Customer, and not by BellSouth. The BellSouth 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, BellSouth technician shall make an additional appointment with the Customer. The BellSouth technician shall obtain the Customer's signature upon said form, and then use the signed form to input maintenance charges into the BellSouth repair and maintenance database (accessible by way of the Electronic Interface established pursuant to Section 3 preceding).

8.14 Dispatching of BellSouth technicians to AT&T Customer premises shall be accomplished by BellSouth 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.

TABLE OF CONTENTS

CONNECTIVITY BILLING AND RECORDING

1. General

This Section describes the requirements for BellSouth to bill and record all charges AT&T incurs for purchasing Local Services for resale and for Network Elements and Combinations, and to provide Meet Point Billing and Mutual Compensation.

2. Billable Information And Charges

2.1. BellSouth will bill and record in accordance with this Agreement those combinations charges AT&T incurs as a result of AT&T purchasing from BellSouth Network Elements, Combinations, and Local Services, as set forth in this Agreement (hereinafter "Connectivity Charges"). BellSouth will format each bill for Connectivity Charges (hereinafter "Connectivity Bill") in accordance with CABS or SECAB as appropriate. Each such Network Element, Combination, or 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 Connectivity Bill in which charges for such Elements, Combinations, or Local Services 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, or Local Services ordered or utilized by AT&T in which Connectivity Charges apply pursuant to this Agreement. Each Connectivity Bill shall set forth the quantity and description of each such Network Element, Combination, or Local Service provided and billed to AT&T. All Connectivity Charges billed to AT&T must indicate the state from which such charges were incurred.

2.1.1. BellSouth may provide to AT&T Connectivity Bills formatted utilizing CRIS/CLUB standards for those Local Services purchased by AT&T from BellSouth through resale until not later than one (1) year after the execution of this Agreement or the adoption by the OBF of formatting standards governing the billing of connectivity charges for Local Services, whichever is earlier, provided however that such bills meet AT&T's requirements as outlined in this document. Prior to the execution of this Agreement, BellSouth was provided AT&T's specifications and requirements that will enable AT&T to process and analyze Connectivity Bills formatted utilizing CRIS/CLUB standards. BellSouth agrees that it will also meet those specifications and requirements upon the execution of this Agreement.

2.2. BellSouth shall provide AT&T a monthly Connectivity Bill that includes all Connectivity Charges incurred by and credits and/or adjustments due to AT&T for those Network Elements, Combination thereof, or Local Services ordered, established, utilized, discontinued or performed pursuant to this Agreement. Each Connectivity Bill provided by BellSouth 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 BellSouth to AT&T, must be a valid calendar date, and not more than one (1) year old. Connectivity Bills shall not be rendered for any Connectivity Charges which are incurred under this Agreement on or before one (1) year preceding the Bill Date, except as otherwise permitted by law. In addition, on each bill where "Jurisdiction" is identified, local and local toll charges shall be identified as "Local" and not as interstate, interstate/ interrelate, intrastate, or intrastate/intraLATA. BellSouth will provide from and through dates for charges rendered on all Connectivity Bills. In addition, BellSouth will separately identify business charges from residence charges, as appropriate.

2.4. BellSouth shall bill AT&T for each Network Element, combination thereof, or Local Service, supplied by BellSouth to AT&T pursuant to this Agreement at the rates set forth in this Agreement. BellSouth will bill AT&T based on the actual Connectivity Charges incurred, provided, however, for those usage based Connectivity Charges where actual charge information is not determinable by BellSouth 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 Connectivity Charges shall be in actual conversation seconds. The total conversation seconds per chargeable traffic types will be totaled 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 Connectivity Billing questions or problems that may arise during the implementation and performance of the terms and conditions of this Attachment.

3. Meet Point Billing

3.1. AT&T and BellSouth 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.

3.2. AT&T and BellSouth will implement the "Multiple Bill/Multiple Tariff" option in order to bill any interexchange carrier ("IXC") for that portion of the network elements provided by AT&T or BellSouth. For all traffic carried over the MPB arrangement, AT&T and BellSouth shall bill each other all applicable elements at the rates specified in this Agreement.

3.3. BellSouth 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/BellSouth 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 and via the medium that the parties agree. If BellSouth does not have a CIC for any IXC that will utilize a portion of AT&T's network in an AT&T/BellSouth MPB arrangement, and for whom BellSouth must supply to AT&T MPB billing information, BellSouth agrees that it will assist such carrier in obtaining a CIC expeditiously. Until such carrier has obtained a CIC, BellSouth will submit BellSouth's CIC on those MPB records provided to AT&T for MPB. BellSouth understands and agrees that it will be solely responsible for obtaining any reimbursements from those carriers who have utilized the jointly provided networks of BellSouth and AT&T.

3.4. BellSouth 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.

3.5. BellSouth and AT&T will record and transmit MPB information in accordance with the standards and in the format set forth in this Attachment. BellSouth 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 Agreement. Each party will notify the other if the level of billing or other BAR/BACR elements change, resulting in a new BAR/BACR number.

3.6. If MPB data is not processed and delivered by either BellSouth or AT&T and sent to the other party within ten (10) days of their recording 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.

3.7. 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 Agreement, 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.

3.8. Errors in MPB data exchanged by the parties may be discovered by AT&T, BellSouth or the billable IXC. Both AT&T and BellSouth 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 incorrectable 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.

3.9. In the event AT&T purchases from BellSouth Network Elements, or Combination thereof, in a LATA other than the LATA to or from which the MPB services are homed and in which BellSouth operates an access tandem, BellSouth shall, except in instances of capacity limitations, permit and enable AT&T to sub-tend the BellSouth 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 BellSouth 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.

3.10. Neither AT&T nor BellSouth will charge the other for the services rendered, or for information provided pursuant to Section 4 of 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.

4. Collocation

When AT&T collocates with BellSouth in BellSouth's facility as described in this Agreement, capital expenditures (e.g., costs associated with building the "cage"), shall not be included in the Connectivity 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 Connectivity Charges associated with collocation. The bill label for those collocation charges shall be entitled "Expanded Interconnection Service." For those nonmechanized connectivity bills formatted according to SECAB, the bill label for non-capital recurring collocation expenses shall be entitled "Collocation."

5. Mutual Compensation

5.1. The parties shall bill each other reciprocal compensation in accordance with the standards set forth in this Agreement for Local 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). Such Local Traffic shall be recorded and transmitted to AT&T in accordance with this Attachment. Further, the Local 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 Local Traffic shall be in accordance with in Part IV to this Agreement.

6. Local Number Portability

6.1. In accordance with the terms and conditions set forth in this Attachment 6, BellSouth 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 BellSouth under INP as further described in the Local Number Portability Attachment to this Agreement.

6.2. When an IXC terminates an interLATA or IntraLATA toll call to an AT&T local exchange customer whose telephone number has been ported from BellSouth, 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. BellSouth 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 BellSouth, the parties agree that the mutual compensation arrangements described in this Agreement shall apply.

7. Issuance of Connectivity Bills - General

7.1. BellSouth and AT&T will issue all Connectivity Bills in accordance with the terms and conditions set forth in this Section. BellSouth and AT&T will establish monthly billing dates ("Bill Date") for each Billing Account Number ("BAN"), as further defined in the CABS/SECAB documents. On Connectivity Bills BellSouth renders to AT&T, BANs shall be 13 character alpha/numeric and there shall only be one BAN per Revenue Accounting Office ("RAO"). The Bill Date shall be the same day month to month for all BANs, except that the 4th, 7th or 13th of each month will not be used as a Connectivity Bill Date for Connectivity Bills BellSouth renders to AT&T. 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 Connectivity 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 Connectivity 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 Connectivity 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 Connectivity Billing data and information within the time period specified above, the payment due date will be extended by the number of

7.2. BellSouth and AT&T shall issue all Connectivity Bills containing such billing data and information in accordance with CABS Version 26.0 or SECAB Issue 4, or such later versions of CABS or SECAB as are published by Bellcore, or its successor, except that if the parties enter into a meet-point billing arrangement, such Connectivity Billing data and information shall also conform to the standards set forth in the MECAB document, or such later versions as are adopted by Bellcore, or its successor. To the extent that there are no CABS, SECAB, or MECAB standards governing the formatting of certain data, such data shall be issued in the format specified by AT&T. Notwithstanding the above, BellSouth may issue AT&T Connectivity Bills in CRIS/CLUB format as provided herein.days the Connectivity Bill is late.

7.3. By no later than September 1, 1996, each party will provide the other party written notice of which Connectivity 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.

7.4. When sending Connectivity Bills via electronic transmission, to avoid transmission failures or the receipt of Connectivity Billing information that cannot be processed, the parties shall provide each other with their respective process specifications. AT&T shall comply with BellSouth's processing specifications when AT&T transmits Connectivity Billing data to BellSouth. BellSouth shall comply with AT&T's processing specifications when BellSouth transmits Connectivity Billing data to AT&T. AT&T and BellSouth shall provide each other reasonable notice if a Connectivity 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.

8. Electronic Transmissions

8.1. BellSouth and AT&T agree that each party will transmit Connectivity Billing information and data in the appropriate CABS or SECAB format electronically via Connect:Direct (formerly known as Network Data Mover) to the other party at the location specified by such 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 BellSouth 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. BellSouth 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 BellSouth's Connect:Direct software. AT&T will supply to BellSouth 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.

8.2. The following dataset format shall be used as applicable for those connectivity charges transmitted via Connect:Direct in **CABS** format:

Production Dataset

AF25.AXXXXYYY.AZZZ.DDDEE	Production Dataset Name
AF25 =	Job Naming Convention
AXXXX =	Numeric Company Code
YYY =	LEC Remote
AZZZ =	RAO (Revenue Accounting Office)
DDD =	BDT (Billing Data Tape with or without CSR) Or CSR (Customer Service Record)
EE =	01 thru 31 (Bill Period) (optional) or GA (US Postal-State Code)

Test Dataset

AF25.ATEST.AXXXX.DDD	Test Dataset Name
AF25.ATEST =	Job Naming Convention
AXXXX =	Numeric Company Code

DDD =	BDT (Billing Data Tape with or without CSR) Or CSR (Customer Service Record)

8.3. The following dataset format should be used as applicable for those connectivity charges transmitted via Connect:Direct in **SECAB** format.

Production Dataset

AFSC.AXXXXYYY.A000.SECAB	Production Dataset Name
AFSC =	Job Naming Convention
AXXXX =	Numeric Company Code
YYY =	Alpha Company Name

Test Dataset

AFSC.ATEST.XXXXXX.SECAB	Test Dataset Name
AFSC.ATEST =	Job Naming Convention
XXXXXX =	Numeric Company Code

9. Tape or Paper Transmissions

9.1. In the event either party does not have Connect:Direct capabilities upon the effective date of this Agreement, such party agrees to establish Connect:Direct transmission capabilities with the other party within the time period mutually agreed and at the establishing party's expense. Until such time, the parties will transmit billing information to each other via magnetic tape or paper, as agreed to by AT&T and BellSouth. Connectivity billing information and data contained on magnetic tapes or paper for payment shall be sent to the parties at the following locations. The parties acknowledge that all tapes transmitted to the other party via U.S. Mail or Overnight Delivery and which contain Connectivity Billing data will not be returned to the sending party.

TO AT&T:

Tape Transmissions via U.S. Mail:	AT&T 300 North Point Parkway FLOC 217M01 Alpharetta, Georgia 30202 Attn: Access Bill Coordinator
Tape Transmissions via Overnight Delivery:	AT&T 500 North Point Parkway FLOC B1404 Alpharetta, Georgia 30302 Attn: Access Bill Coordinator

Paper Transmissions via U.S. Mail:	AT&T Caller Service 6908 Alpharetta, Georgia 30202 Attn: Access Bill Coordinator
Paper Transmissions via Overnight Delivery:	AT&T 500 North Point Parkway FLOC B1404 Alpharetta, Georgia 30302 Attn: Access Bill Coordinator

TO BellSouth:

Tape Transmissions:	Attn:
Paper Transmissions:	Attn:

10.2 Each party will adhere to the tape packaging requirements set forth in this subsection. Where magnetic tape shipping containers are transported in freight compartments, adequate magnetic field protection shall be provided by keeping a typical 6-inch distance from any magnetic field generating device (except a magnetron-tape device). The parties agree that they will only use those shipping containers that contain internal insulation to prevent damage. Each party will clearly mark on the outside of each shipping container its name, contact and return address. Each party further agrees that it will not ship any Connectivity Billing tapes in tape canisters.

10.3 All billing data transmitted via tape must be provided on a cartridge (cassette) tape and must be of high quality, conform to the parties' record and label standards, 9-track, odd parity, 6250 BPI, group coded recording mode and extended binary-coded decimal interchange code ("EBCDIC"). Each reel of tape must be 100% tested at 20% or better "clipping" level with full width certification and permanent error free at final inspection. AT&T reserves the right to destroy a tape that has been determined to have unrecoverable errors. AT&T also reserves the right to replace a tape with one of equal or better quality.

10.4 Billing data tapes shall have the following record and label standards. The dataset serial number on the first header record of an IBM standard tape label also shall have the following format.

	CABS BOS	SECAB
Record Length	225 bytes (fixed length)	250 bytes (fixed length
Blocking factor	84 records per block	Not Applicable
Block size	18,900 bytes per block	Not Applicable
Labels	Standard IBM Operating System	Standard IBM Operating System

10.5 A single 6-digit serial number must appear on the external (flat) surface of the tape for visual identification. This number shall also appear in the "dataset serial number field" of the first header record of the IBM standard tape label. This serial number shall consist of the character "V" followed by the reporting location's four digit Originating Company Code and a numeric character chosen by the sending company. The external and internal label shall be the same. The dataset name shall appear on the flat side of the reel and also in the "data set name field" on the first header record of the IBM standard tape label. BellSouth's name, address, and contact shall appear on the flat side of the cartridge or reel.

10.6 Tape labels shall conform to IBM OS/VS Operating System Standards contained in the IBM Standard Labels Manual (GC26-3795-3). IBM standard labels are 80-character records recorded in EBCDIC, odd parity. The first four characters identify the labels:

Volume 1	Volume label
HDR1 and HDR2	Data set header labels
EOV1 and EOV2	Data set trailer labels (end-of-volume for multi-reel files)
EOF1 and EOF2	Data set trailer labels (end-of-data-set)

The HDR1, EOV1, and EOF1 labels use the same format and the HDR2, EOV2, and EOF2 labels use the same format.

10.7 The Standard Volume Label Format (Vol. 1) is described below:

FIELD NAME	CONTENTS
Label Identifier (3 bytes)	The characters "VOL" identify this label as a volume label.
Label Number (1 byte)	The relative position of this label within a set of labels of the same type; it is always a 1 for the IBM standard volume label.
Volume Serial Number (6 bytes)	A unique identification code, normally numeric characters (000001-999999), but may be alpha-numeric; if fewer than 6 characters, must be left-justified. This same code should also appear on the external (flat) surface of the volume for visual identification.
Reserved (1 byte)	Reserved for future use - should be recorded as blanks.
VTOC Pointer (10 bytes)	Direct-access volumes only. This field is not used for tape volumes and should be recorded as blanks.
Reserved (10 bytes)	Reserved for future use - should be recorded as blanks.
Owner Name and Address Code(10 bytes)	Indicates a specific customer, person, installation, department, etc., to which the volume belongs. Any code or name is acceptable.
Reserved (29 bytes)	Reserved for future use - should be recorded as blanks.

10.8 The IBM Standard Dataset Label 1 Format (HDR1, EOV1, EOF1) is described bel

FIELD NAME	CONTENTS
Label Identifier (3 bytes)	Three characters that identify the label are: HDR Header label (at the beginning of a dataset) EOV Trailer label (at the end of a tape volume, when the dataset continues on another volume) EOF Trailer label (at the end of a dataset).
Label Number (1 byte)	The relative position of this label within a set of labels of the same type; it is always a 1 for dataset label 1.

FIELD NAME	CONTENTS
Dataset Identifier (17 bytes)	The rightmost 17 bytes of the dataset name (includes GnnnnVnn if the dataset is part of a generation data group). If the dataset name is less than 17 bytes, it is left-justified and the remainder of this field is padded with blanks.
Dataset Serial Number (6 bytes)	The volume serial number of the tape volume containing the dataset. For multi-volume datasets, this field contains the serial number of the first volume of the aggregate created at the same time. The serial number can be any 6 alphanumeric characters, normally numeric (000001-999999). If the number of characters is fewer than 6 characters, the code must be left-justified and followed by blanks.
Volume Sequence Number (4 bytes)	A number (0001-9999) that indicates the order of volume within the multi-volume group created at the same time. This number is always 0001 for a single volume dataset.
Dataset Sequence Number (4 bytes)	A number (0001-9999) that indicates the relative position of the dataset within a multi-dataset group. This number is always 0001 for a single dataset organization.
Generation Number (4 bytes)	If the dataset is part of a generation data group, this field contains a number from 0001 to 9999 indicating the absolute generation number (the first generation is recorded as 0001). If the dataset is not part of a generation data group, this field contains blanks.
Version Number Of Generation (2 bytes)	If the dataset is part of a generation data group, this field a number from 00 to 99 indicating the version number of the generation (the first version is recorded as 00). If the dataset is not part of a generation data group, this field contains blanks.
Creation Date (6 bytes)	Year and day of the year when the dataset was created. The date is shown in the format byyddd where: b = blank yy = year(00-99) ddd = day(001-366)
Expiration Date (6 bytes)	Year and day of the year when the dataset may be scratched or overwritten. The data is shown in the format byyddd where: b = blank yy = year (00-99) ddd = day (001-366)
Dataset Security (1 byte)	A code number indicating the security status of the dataset is as follows: 0 No password protection 1 Password protection Additional identification of the dataset is required before it can be read, written, or deleted (ignored if volume is RACF-defined) 3 Password protection Additional identification of the dataset is required before it can be read, written, or deleted (ignored if volume is RACF-defined).

FIELD NAME	CONTENTS
Block Count (6 bytes)	This field in the trailer label shows the number of data blocks in the dataset on the current volume. This field in the header label is always zeros (000000).
System Code (13 bytes)	Unique code that identifies the system.
Reserved (7 bytes)	Reserved for future use - should be recorded as blanks.

10.9 The IBM Standard Dataset Label 2 Format (HDR2, EOV2, EOF2) always follows dataset label 1 and contains additional information about the associated dataset as described below:

FIELD NAME	CONTENTS
Label Identifier (3 bytes)	Three characters that identify the label are as follows: HDR Header label (at the beginning of a dataset) EOV Trailer label (at the end of a tape volume, when the dataset continues on another volume) EOF Trailer label (at the end of a dataset).
Label Number (1 byte)	The relative position of this label within a set of labels of the same type; it is always a 2 for dataset label 2.
Record Format (1 byte)	An alphabetic character that indicates the format of records in the associated dataset as follows: F Fixed length V Variable length U Undefined length.
Block Length (5 bytes)	A number up to 32760 that indicates the block length, in bytes. Interpretation of the number depends on the following associated record format in Field 3: Format F - Block length (must be a multiple of the logical record length in Field 5) Format V - Maximum block length (including the 4 byte length indicator in the block) Format U - Maximum block length.
Record Length (5 bytes)	A number that indicates the record length, in bytes. Interpretation of the number depends on the following associated record format in Field 3: Format F - Logical record length Format V - Maximum logical record length (including the 4 byte length indicator in the records) Format U - Zeros.

FIELD NAME	CONTENTS
Tape Density (1 byte)	A code indicating the record density of the tape, as follows: Recording Density DEN Value 9-Track Tape 3 1600 (PE) 4 6250 (GCR) PE - is for phase encoded mode GCR - is for group coded recording mode.
Dataset Position (1 byte)	A code, indicating a volume switch, is as follows: 0 - No volume switch has occurred 1 - A volume switch previously occurred.
Job/Job Step (17 bytes)	Identification of the job and job step that created the dataset. The first 8 bytes contain the name of the job, the ninth byte is a slash (/), and the final 8 bytes contain the name of the job step.
Tape Recording Technique (2 bytes)	A code or blanks indicating the tape recording technique used. This field is recorded as blanks for 9-track tape. The only technique available for 9-track tape is odd parity and no translation.
Control Characters (1 byte)	A code indicating whether a control character set was used to create the dataset and the type of control characters used: A Contains ASCII control characters M Contains machine control characters b Contains no control characters.
Reserved (1 byte)	Reserved for future use - should be recorded as blanks.
Block Attribute (1 byte)	A code indicating the block attribute used to create the dataset: B Blocked records S Spanned records R Blocked and spanned records b No blocked and no spanned records.
Reserved (8 bytes)	Bytes 40-42 - reserved for future use -should be blanks. Bytes 43-47 - (3420 tape units only) serial number of creating tape unit. Blank for other units.
Checkpoint Dataset (1 byte)	In VS2-Release 2, this byte contains the identifier character C if the dataset is a checkpoint dataset; the byte is blank if the dataset is not a check point dataset or in other releases of the VS systems.
Reserved (32 bytes)	Reserved for future use - should be recorded as blanks.

10. Testing Requirements

10.1. Within thirty (30) days of the execution of this Agreement, BellSouth shall send to AT&T connectivity bill data in the appropriate mechanized format (i.e. CABS or SECAB) 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 BellSouth AT&T will notify BellSouth if the connectivity billing transmission meets AT&T's testing specifications. If the transmission fails to meet AT&T's testing specifications, BellSouth shall make the necessary corrections. At least three (3) sets of testing data must meet AT&T's testing specifications prior to BellSouth sending AT&T a mechanized production connectivity bill for the first time via electronic transmission or tape. Thereafter, BellSouth may begin sending AT&T mechanized production connectivity bills on the next Bill Date, or within ten (10) days, whichever is later.

10.2. At least 30 days prior to changing mechanized formats (e.g., from SECAB to CABS), BellSouth shall send to AT&T connectivity bill data in the appropriate mechanized format for testing to ensure that the bills can be processed and that the bills comply with the requirements of this Attachment. BellSouth agrees that it will not send AT&T bill data in the new mechanized format until such bill data has met the testing specifications as set forth in this subsection.

10.3. BellSouth shall provide to AT&T's Company Manager, located at 500 North Point Parkway, FLOC B1104B, Alpharetta, Georgia 30302, BellSouth'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 BellSouth's originating or state level company code.

10.4. During the testing period, BellSouth shall transmit to AT&T Connectivity Billing data and information via paper transmission. Test tapes shall be sent to AT&T at the following location:

Test Tapes:	AT&T 500 North Point Parkway FLOC B1104B Alpharetta, Georgia 30302 Attn: Access Bill Testing Coordinator

11. Additional Requirements

11.1. BellSouth agrees that if it transmits data to AT&T in a mechanized format, BellSouth will also comply with the following specifications which are not contained in CABS or SECAB guidelines but which are necessary for AT&T to process Connectivity 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 Connectivity 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.

11.2. For those Connectivity Charges billed in a mechanized format and in accordance with SECAB's format, BellSouth agrees to comply with the additional requirement set forth below:

- All data denoted as IC preference is required.
- When the Company Code is not a State Level Company Code, the State Identification should be the state from which charges were incurred.
- The SECAB Inventory and Rating Record Information for a Connectivity Bill will be provided monthly.
- In a multiple state or multiple Exchange Carrier (EC) environment, the STATE IDENTIFICATION on the Face Page (SCFAC1) Record should be populated with XX. This indicates the amounts on Summary Page 1-3 (SCSUM1, SCSUM2 and SCSUM3) Records represent the sum of multiple Summary Pages 4 and 5 (SCSUM4 and SCSUM5) Records.
- The mechanized records should be sent in the following sequence. (All records have been denoted, however they should be sent only when the production of the record is applicable as described in the SECAB document.)

RECORD		
SCFILE		
SCHEAD		
SCFAC1		
SCFAC2		
SCFAC3		
SCFAC4		
SCSUM1		
SCSUM2		
SCSUM3		
SCDSS1		
SCSUM4	NOTE:	GROUP BY COMPANY - SCSUM4, SCSUM5,
SCSUM5		SCDSS2; SCSUM4,
SCDSS2		SCSUM5, SCDSS2; etc...

SCADJ1
SCOCC1
SCUSG1
SCFCTR
SCSURG
SCTAX1
SCCKTL

SCSPC1
SCSPC2
SCSPC3

NOTE: GROUP BY CIRCUIT CHARGE - SCSPC1, SCSPC2, SCSPC3; SCSPC1, SCSPC2, SCSPC3, etc...

SCEND1
SCEND2

12. Bill Accuracy Certification

The Parties agree that in order to ensure the proper performance and integrity of the entire Connectivity Billing process, BellSouth will be responsible and accountable for transmitting to AT&T an accurate and current bill. BellSouth 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. Accordingly, AT&T and BellSouth agree to work diligently and in good faith to develop a pre-bill certification process by December 31, 1996 for Connectivity Bills rendered pursuant to this Agreement

13. Payment Of Charges

13.1. Subject to the terms of this Agreement, AT&T and BellSouth 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.

13.2. 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 Connectivity Billing data and information for

payment, BellSouth and AT&T shall provide each other the name and address of its bank. its account and routing number and to whom Connectivity 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 BellSouth with one address to which such payments shall be rendered and BellSouth will provide to AT&T with only one address to which such payments shall be rendered. In the event AT&T receives multiple Connectivity Bills from BellSouth which are payable on the same date, AT&T may remit one payment for the sum of all Connectivity Bills payable to BellSouth's bank account specified in this subsection. Each party shall provide the other party with a contact person for the handling of Connectivity Billing payment questions or problems.

14. Billing Disputes

14.1. 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 11 of the General Section of this Agreement. Closure will take place within three (3) months of the Bill Date. The month being closed represents those Connectivity 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:

14.1.1. 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.

14.1.2. 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.

14.1.3. 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.

14.1.4. 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 16 of the General Section of this Agreement and Attachment 1.

14.2. If a party disputes a Connectivity 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 Connectivity Charges and the dispute is resolved in favor of such party, the other party shall credit the Connectivity 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 Connectivity 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.

15. Late Payment Charges

If either party fails to remit payment for any Connectivity 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.

16. Adjustments

Subject to the terms of this Attachment, BellSouth will reimburse AT&T for incorrect Connectivity Billing charges; 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; Local Services, Elements, or Combination thereof, of poor quality; and installation problems if caused by BellSouth. Such reimbursements shall be set forth in the appropriate section of the Connectivity Bill pursuant to CABS, or SECAB standards.

17. Recording Of Call Information

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

17.2. Each party will provide the other party with a carrier identification code ("CIC") on each EMR record transmitted to the other party. If BellSouth does not have a CIC for any local exchange carrier, BellSouth or IXC for whom BellSouth must supply to AT&T Connectivity Billing records or information pursuant to this Attachment, BellSouth agrees that it will assist the local exchange carrier, BellSouth or IC in obtaining a CIC expeditiously. Until the local exchange carrier, BellSouth or IXC has received a CIC, BellSouth agrees that it will submit its CIC to AT&T on those records for billing and payment. BellSouth 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, BellSouth or IXC for whom AT&T must supply to BellSouth Connectivity Billing records or information pursuant to this Attachment, AT&T agrees that it will assist the local exchange carrier, BellSouth or IXC in obtaining a CIC expeditiously. Until the local exchange carrier, BellSouth or IXC has received a CIC, AT&T agrees that it will submit its CIC to BellSouth 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.

17.3. The parties agree that it will meet the following performance measurements for the provision of EMR records:

17.3.1. 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.

17.3.2. Accuracy: There should be no more than 60 errors per one (1) million records transmitted.

17.3.3. Completeness: There should be no more than 20 omissions per one (1) million records.

17.4. The parties agree that they will provide each other a single person to contact regarding any data exchange problems.

18. Examination Of Records

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 BellSouth's documents, systems, records and procedures which relate to the billing and recording of the Connectivity Charges to AT&T under this Attachment 6.

TABLE OF CONTENTS

PROVISION OF CUSTOMER USAGE DATA

PROVISION OF CUSTOMER USAGE DATA

1. Introduction

1.1 This Attachment sets forth the terms and conditions for BellSouth's provision of Recorded Usage Data (as defined in this Attachment) to AT&T. Recorded Usage Data shall be provided by BellSouth to AT&T when AT&T purchases Network Elements, Combinations, or Local Services from BellSouth.

2. General Requirements for Recorded Usage Data

2.1 BellSouth shall provide AT&T with Recorded Usage Data in accordance with this Attachment.

2.2 BellSouth'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 BellSouth shall retain Recorded Usage Data in accordance with applicable law and regulation.

3. Usage Data Specifications

3.1 BellSouth will record all usage originating from AT&T Customers using BellSouth-provided Element or Local Services. 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 BellSouth Facilities And Contracted By BellSouth
- Calls To Directory Assistance Where BellSouth Provides Such Service To An AT&T Customer
- Calls Completed Via BellSouth-Provided Operator Services Where BellSouth Provides Such Service To AT&T's Local Service Customer
- For BellSouth-Provided Centrex Service, Station Level Detail
- Records Shall Include Complete Call Detail And Complete Timing Information
- Recording Of Completed Calls Which BellSouth Does Not Record For Its Own Service Offerings (e.g., Flat Rate Free Calling Area Service)

3.2 BellSouth shall provide to AT&T Recorded Usage Data for AT&T Customers only. BellSouth will not submit other carrier local usage data as part of the AT&T Recorded Usage Data.

3.3 Calls to Information Service Providers referenced in Section 3.1 preceding shall be provided to AT&T in rated format for billing to the customer. BellSouth acknowledges and agrees that upon the execution of this Agreement BellSouth will continue to rate and bill Information Service Providers as in the normal manner prior to the execution of this Agreement until AT&T notifies BellSouth that AT&T is able to bill such calls to Information Service Providers in rated format.

3.4 The parties also agree to establish settlement procedures to permit AT&T to recourse to BellSouth amounts AT&T Customers refuse to pay for these rated information provider charges forwarded by BellSouth to AT&T for billing.

3.5 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 BellSouth 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, ("Data Requirements"), which is attached hereto and incorporated herein as Appendix II.

4.2 BellSouth 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 BellSouth shall segregate and organize the Recorded Usage Data in accordance with AT&T's instructions.

5.2 BellSouth shall provide segregated Recorded Usage Data to multiple AT&T biller locations as designated by AT&T.

5.3 BellSouth, 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.

5.4 AT&T will test and certify the CONNECT:Direct interface to ensure the accurate receipt of Recorded Usage Data. BellSouth shall make any changes necessary to pass the AT&T CONNECT:Direct certification process.

5.5 BellSouth shall provide Recorded Usage Data to AT&T on a schedule to be determined by the parties once a day three hundred sixty-five (365) days a year, as designated by AT&T. BellSouth 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.

5.6 BellSouth 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, BellSouth 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.

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 BellSouth in its performance of the recording function shall, upon AT&T's request, be recovered by BellSouth at no charge to AT&T. In the event the data cannot be recovered by BellSouth, BellSouth 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 BellSouth and AT&T. This estimate will be used to adjust amounts AT&T owes BellSouth for services BellSouth provides in conjunction with the provision of Recorded Usage Data.

6.1.1 **Partial Loss** - BellSouth 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, BellSouth 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. BellSouth 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), BellSouth shall use volumes from the two (2) preceding Sundays.

6.1.3.3 If the loss occurs on Mother's Day or Christmas, BellSouth 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 BellSouth to AT&T. BellSouth shall reprovide such data, if available, at no additional charge to AT&T.

7. **Charges**

BellSouth shall bill and AT&T shall pay the charges set forth in Part IV 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**

8.1 When AT&T purchases Local Service from BellSouth, and, as appropriate, when AT&T purchases certain Unbundled Network Elements, BellSouth shall provide AT&T with Local Account Maintenance as described herein. These procedures are in addition to Service Order procedures set forth in Part I and Attachment 4 to the Agreement.

8.2 When notified by a CLEC that an AT&T Customer has switched to CLEC service, BellSouth shall provision the change, and notify AT&T via CONNECT:Direct within twenty-four (24) hours of the provisioning that the customer has changed to another service provider ("OUTPLOC").

8.3 When notified by AT&T that a customer has changed his/her PIC only from one interexchange carrier to another carrier, BellSouth shall provision the PIC only change and convey the confirmation of the PIC change via the work order completion feed.

8.4 If notified by an interexchange carrier using an '01' PIC order record that an AT&T Customer has changed his/her PIC only, BellSouth will reject the order and notify that interexchange carrier using an industry standard '3148' record with the Operating Company Number of the serving CLEC indicated, that an '01' CARE PIC record should be sent to the serving CLEC for processing

9. **Clearinghouse and Incollect/Outcollect Procedures [To Be Provided]**

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APPENDIX I
TO
ATTACHMENT 7

DMOQ'S FOR
PROVISION OF CUSTOMER USAGE DATA

1. **Switched Services**

BellSouth 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**

BellSouth 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:

Rating	Criteria
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 failure.

** During the first six (6) months, no rating will be applied.

3. **Timeliness**

BellSouth will mechanically transmit, via CONNECT:Direct, all usage records to AT&T's Message Processing Center three (3) times a day.
Measurement:
Rating Criteria
Exceeds Expectations ≥ 99.95% records delivered on the day 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**

BellSouth 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:

$$\frac{\text{Total number of Recorded Usage Data records delivered during current month minus Number of Usage Call Records held in error file at the end of the current month}}{\text{Total number of Recorded Usage Data Records delivered during current month}} \times 100$$

Measurement:
Rating Criteria
Exceeds Expectations 100% of all recorded records delivered

Meets Expectations ≥ 99.99% of all recorded records delivered

Approaches Expectations 99.95% to 99.98% of recorded records delivered

Does Not Meet Expectations ≤ 99.94% of all recorded records delivered

Note: Failure of BellSouth to transmit to AT&T 100% of all recorded messages shall result in a liability by BellSouth to AT&T for the lost revenue.

5. **Accuracy**

BellSouth will provide Recorded Usage Data in the format and with the content as defined in the current Bellcore EMR document.

Metric:

$$\frac{\text{Total Number of Recorded Usage Data Transmitted Correctly}}{\text{Total Number of Recorded Usage Data Transmitted}} \times 100$$

Measurement:
Rating Criteria
Exceeds Expectations 100% of all recorded records delivered

Meets Expectations ≥ 99.99% of all recorded records delivered

Approaches Expectations 99.95% to 99.98% of all recorded records delivered

Does Not Meet Expectations ≤ 99.94% of all recorded records delivered

6. **Data Packs**

BellSouth will transmit to AT&T all packs error free in the format agreed.

Measurement:

Rating Criteria
Exceeds Expectations 6+ months of Transmitted Packs without a rejected pack

Meets Expectations 6 months of Transmitted Packs without a rejected pack

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**

BellSouth 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 of the call, and Correct Originating/Terminating information pertaining to the call. The error is reported to BellSouth 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 BellSouth for each:

Measurement:

Severity 1:
Rating Criteria
Exceeds Expectations 100% of the MR fixed in ≤ 24 hours

Meets Expectations ≥90% of the MR fixed in ≤24 hours and 100% of the MR fixed in ≤5 Days

Does Not Meet Expectations < 90% of the MR fixed in ≤24 hours
or
< 100% of the MR fixed in > 5 Days

Severity 2:
Rating Criteria
Exceeds Expectations 100% of the MR fixed in ≤3 working

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**

BellSouth 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 Criteria
Meets Expectations 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

SECTION I: SCOPE

1. **General**

This Appendix addresses the transmission by a BellSouth of AT&T Customer usage to AT&T.

2. **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 BellSouth:

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, BellSouth 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 BellSouth's offering.
For detailed information regarding EMR, refer to the current version of the BellCore Practice BR010-200-010 Appendix.

3. **Appendix Content**

This Appendix describes baseline requirements for the transfer of BellSouth 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 BellSouth. Modifications and/or exceptions to this Appendix must be negotiated and mutually agreed upon by BellSouth and AT&T.

SECTION II: RECORDED USAGE TO BE TRANSMITTED TO AT&T

1. **General**

This section addresses the types of usage to be transmitted by BellSouth to AT&T.

2. **Usage To Be Transferred To AT&T**

2.1 **AT&T Usage To Be Transferred**

The following messages recorded by BellSouth are to be transmitted to AT&T. BellSouth recorded usage includes all usage by AT&T Customers.

NOTE: Rated in collect messages should be transmitted via the direct feed and can be intermingled with the unrated messages. No special packing is needed.
Subject to Subsection II.2.1.1, 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 BellSouth via a direct returns feed. Returned messages will be sent to BellSouth in EMR format. Standard EMR return codes will be utilized.

2.1.1 For the period beginning upon the execution of this Agreement through November 15, 1996, the parties agree that if any of the above mentioned messages cannot be rated and/or billed by AT&T, BellSouth will work diligently and in good faith with AT&T to determine the cause of the problem and will work to expeditiously resolve the defect. Upon the execution of this Agreement, BellSouth will provide AT&T with a contact name and number for the resolution of any problems that may arise under this subsection. The parties further agree that if the number of problems that occur are de miminus, the process described in this subsection may be extended for the time period agreed to by the parties.

2.2 File transfer specifications are included within Section III of this Appendix II.

3. **AT&T Usage**

The Recorded Usage Data in a local resale environment includes all intraLATA toll and local usage. BellSouth 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 BellSouth 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: BellSouth messages will be packed using the packing criteria outlined in Section III. 4.8 of this Appendix. It is important to note that all BellSouth 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.

SECTION III: BELLSOUTH TO AT&T USAGE FEED

1. **General**

This section contains the information required for BellSouth to transmit to AT&T the usage defined in this Appendix, Section II. This section specifically addresses the dataset requirements and processing.

2. **Detailed EMR Record Edits**

AT&T will perform detailed record edits on the unrated and rated messages upon receipt from BellSouth. Messages that fail these edits may be returned to BellSouth as provided in this Appendix, Section II.2.1 and Section II.2.1.1;

3. **Duplicate Record Checks**

AT&T will perform record checks on the unrated and rated messages to validate that duplicate messages are not sent by BellSouth to AT&T.

4. **BellSouth to AT&T Usage Feed**

4.1 **Usage Data Transport Requirements**

BellSouth will provide the transport facility between BellSouth 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, BellSouth will contract for a courier service to transport the data via tape.

BellSouth 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 BellSouth.
Receiving usage tapes from a courier service in the event of a facility outage.

4.2 **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.

4.3 **Data Delivery Schedules**

Data will be delivered to AT&T by BellSouth daily (Monday through Friday) unless otherwise negotiated. AT&T and/or BellSouth Data Center holidays are excluded. BellSouth and AT&T will exchange schedules of designated Data Center holidays.

4.4 **Resending Data**

AT&T will notify BellSouth of resend requirements if a pack or entire dataset must be replaced due to pack rejection, damage in transit, dataset name failure, etc.

4.5 **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 BellSouth and retransmitted to AT&T by BellSouth.

4.6 **Held Packs And Messages**

AT&T and BellSouth will track pack number to control input based upon invoice sequencing criteria. BellSouth will be notified of sequence failures identified by AT&T and resend procedures are to be invoked.

4.7 **Data Content Requirements**

EMR is the format to be used for usage data provided to AT&T.

4.8 **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. BellSouth 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. BellSouth will populate the FROM RAO field with the unique numeric value identifying the location that is sending the data to AT&T. BellSouth 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.

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 BellSouth.

4.9 Dataset Naming Convention

BellSouth 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 1BB3PX*NN**
NODE 2.IBMUP
NODE 3 (To be determined during negotiations)
NODE 4.USAGE

NODE 5.G*NNNNV** (Generational Dataset to be incremented by sender).
*The italicized "*N*" represents numeric fields determined during negotiations.

4.10 Control Reports

AT&T accepts input data provided by BellSouth 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 BellSouth to AT&T, data transfer control reports will be required. These reports shall be provided by AT&T to BellSouth on a daily or otherwise negotiated basis and reflect the results of the processing for each pack transmitted by BellSouth.

4.11 Message Validation Reports

AT&T will provide the following three (3) daily (or otherwise negotiated) Message Validation reports to the designated BellSouth System Control Coordinator. These reports will be provided for all data received within BellSouth Local Resale Feed and will be transmitted Monday through Friday whether or not there have been any files transmitted.

4.11.1 Message Validation Pack Reject Report (A7287)

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 B hereto.

4.11.2 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. BellSouth Total Messages
2. BellSouth 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 BellSouth.

An example of the report is provided in Subappendix C hereto.

4.11.3 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
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 D hereto.

4.11.4 **Control Reports - Distribution**

Since BellSouth 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.

2. **AT&T Rating Process**

2.1 **Message Rating**

AT&T will rate any individual messages (as defined in Section II of this Appendix), that have not already been rated by BellSouth, prior to transmitting the usage to a billing environment within AT&T.

2.2 **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 BellSouth.

2.3 **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 BellSouth duplicate message disposition procedures and reports will be identified by AT&T during negotiations.

2.4 **Record Edits**

2.4.1 **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 BellSouth as provided in this Appendix, Section II. 2.1 and Section II. 2.1.1.

2.4.2 **BellSouth Record Edits**

If BellSouth has existing detailed record edits for rated and unrated messages. BellSouth is to perform these edits.

Rated and unrated records that do not pass AT&T edits will be returned to BellSouth. BellSouth will attempt to perform error correction on all records requiring such action as agreed upon through the detailed negotiations process.

2.4.3 **AT&T To BellSouth Message Returns**

At the discretion of AT&T, messages that have been sent to AT&T by BellSouth that cannot be guided to an AT&T billed account or error in processing will be returned to BellSouth with the appropriate negotiated return codes as provided in this Appendix, Section II. 2.1 and Section II. 2.1.1.

2.4.4 **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 BellSouth 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.

2. **Interface Testing**

The purpose of this test is to ensure that the usage described in Section II of this Appendix preceding can be sent by BellSouth to AT&T and can be accepted and processed by AT&T. BellSouth 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 BellSouth in writing whether the format is acceptable. AT&T will also provide BellSouth with the agreed-upon control reports as part of this test.

3. **Operational Test**

The purpose of this test is to ensure that volumes of usage in consecutive sequence can be extracted, distributed, and processed by BellSouth and AT&T.

BellSouth is required to provide AT&T with BellSouth recorded, unrated usage (as defined in Section II of this Appendix) for a minimum of five (5) consecutive days. AT&T will provide BellSouth 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.

4. **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.

SECTION VI: POST DEPLOYMENT ACTIVITIES

1. General

Requirements for ongoing maintenance of the usage feeds between AT&T and BellSouth are described in this section. Included are minimal requirements for day to day control of the regularly scheduled transfer of BellSouth unrated and rated usage data and procedures for introducing and verifying AT&T/BellSouth System Changes.

2. Control Maintenance And Review

2.1 Periodic Review

Control procedures for all usage transferred between BellSouth and AT&T will require periodic review. This review may be included as part of an annual audit of BellSouth by AT&T or as part of the normal production interface management function. Breakdowns which impact the flow of usage between BellSouth 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 BellSouth.

2.2 Retention of Records

BellSouth 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 BellSouth for a minimum period of forty-five (45) calendar days. Designated AT&T personnel will provide these records to BellSouth or its authorized agents upon written request. BellSouth will also provide any data back to AT&T upon their written request.

3. BellSouth Software Changes

When BellSouth plans to introduce any software changes which impact the format or content structure of the usage data feed to AT&T, designated BellSouth personnel will notify AT&T no less than one hundred twenty (120) calendar days before such changes are implemented.

BellSouth will communicate the projected changes to the appropriate groups

in AT&T so that potential impacts on AT&T processing can be determined.

AT&T personnel will review the impact of the change on the entire control structure as described in Appendix II Section 5, Post Conversion Test Plan, herein. AT&T will negotiate any perceived problems with BellSouth and will arrange to have the data tested utilizing the modified software.

If it is necessary for BellSouth to request changes in the schedule, content or format of usage data transmitted to AT&T, BellSouth will notify AT&T.

3.1 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 BellSouth, AT&T will notify BellSouth.

When the negotiated changes are to be implemented, AT&T and/or BellSouth will arrange for testing of the modified data as described in Appendix II, Section 5, Post Conversion Test Plan.

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 BellSouth, AT&T will notify the designated BellSouth 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 BellSouth so that potential impacts on BellSouth processing can be determined.

AT&T will negotiate any perceived problems with BellSouth 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.

5. Post-Conversion Test Plan

The test plan described below is designed to encompass all types of changes to the usage data transferred by BellSouth to AT&T and the methods of transmission for that data.

5.1 BellSouth System Change Description

For a BellSouth system change, BellSouth 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, BellSouth shall provide a list of the specific records and/or systems impacted by the change to designated AT&T personnel.

Finally, BellSouth 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.

5.2 Change Negotiations

AT&T shall be notified in writing of all proposed negotiations initiated by BellSouth. In turn, AT&T will notify BellSouth of proposed change negotiations initiated by AT&T.

After formal notification of planned changes, whether originated by BellSouth or AT&T, designated AT&T personnel will schedule negotiation meetings as required with designated BellSouth 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, BellSouth 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 BellSouth.

5.3 Control Change Analysis

Based on the detailed description of the changes provided by BellSouth, and the review of the projected changes by AT&T, designated AT&T personnel will:

5.3.1 Determine the impact of the changes on the overall structure.

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);

5.3.3 Determine whether any controls might be adversely affected; and

5.3.4 Arrange for appropriate control structure changes to meet any of the above conditions.

5.4 **Verification Of Changes**

5.4.1 Based on the detailed description of changes furnished by BellSouth, designated AT&T personnel will:

5.4.1.1 Determine the type of change(s) to be implemented.

5.4.1.2 Develop a comprehensive test plan.

5.4.1.3 Negotiate scheduling and transfer of modified data with BellSouth.

5.4.1.4 Negotiate testing of modified data with the appropriate AT&T RPC.

5.4.1.5 Negotiate processing of verified data through the AT&T billing system with the RPC.

5.4.1.6 Arrange for review and verification of testing with appropriate AT&T groups.

5.4.1.7 Arrange for review of modified controls, if applicable.

5.5 Introduction of Changes

5.5.1 When all the testing requirements have been met and the results reviewed and accepted, designated AT&T personnel will:

5.5.1.1 Negotiate an implementation schedule.

5.5.1.2 Verify the existence of a contingency plan with the appropriate AT&T personnel.

5.5.1.3 Arrange for the follow-up review of changes with appropriate AT&T personnel.

5.5.1.4 Arrange for appropriate changes in control program, if applicable.

5.5.1.5 Arrange for long-term functional review of impact of changes on the AT&T billing system, i.e., accuracy, timeliness, and completeness.

SECTION VII: SUBAPPENDICES

SUMMARY OF SUBAPPENDICES

Subappendix A

Physical Characteristics Of Data Tapes/
Cartridges

Subappendix B

Message Validation Pack Reject Report (A7287)

Subappendix C

Message Validation Pack Accepted Report (A7288)

Subappendix D

Message Validation EMR Detail Error Report (A7289)

Subappendix E

Special Features Star Services

SUBAPPENDIX A

PHYSICAL CHARACTERISTICS OF DATA TAPES/CARTRIDGES

Data transported to AT&T by BellSouth, or to BellSouth 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 modules location with variable length records	104 bytes EMR compacted format plus as applicable.

SUBAPPENDIX B

MESSAGE VALIDATION PACK REJECT REPORT (A7287) MM/DD/YY HH:MM:SS

RETEN CODE: 01R-00300

- -

COMPANY XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 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	

TRAILER	RECORD ID	DATE CREATED	INVOICE NUMBER	BELL CO ID	BELL RAO	IX CARRIER	IND CO ID	TOTAL REC. COUNT
	999999	99-99-99	99	99	999	999	9999	99,999

ERRORS ERROR CODE ERROR MESSAGE

EC99.9
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

SUBAPPENDIX B (CONT'D)
MESSAGE VALIDATION PACK REJECT REPORT (A7287)

ERROR CODE	ERROR MESSAGES
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 C - MESSAGE VALIDATION PACK ACCEPTED REPORT (A7288)

MM/DD/YY-------HH:MM:SS
RETEN CODE: 01R-00300

COMPANY XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX FROM RAO INVOICE NO. DATE CREATED
TOTAL RECORDS RECEIVED
----------999----------99----------MM/DD/YY----------
-------ZZ.ZZ9

----------RECORD
COUNTS----------MESSAGE COUNTS ----------
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.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9					
010103					OUTWATS (SMDR)	ZZ.ZZ9	ZZ.ZZ9	ZZ.ZZ9	
ZZ.ZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9					
010104					800 SERVICE	ZZ.ZZ9	ZZ.ZZ9	ZZ.ZZ9	
ZZ.ZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9					
			TOTAL WATS/800						
010101					MTS	ZZ.ZZ9	ZZ.ZZ9		
ZZ.ZZ9	ZZ.ZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9				
010106					NON-DIAL CONFER BRIDGE	ZZ.ZZ9	ZZ.ZZ9	ZZ.ZZ9	
ZZ.ZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9					
010107					NON-DIAL CONFER LEG RECORD	ZZ.ZZ9	ZZ.ZZ9	ZZ.ZZ9	
ZZ.ZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9					
010108					DIAL CONFERENCE BRIDGE	ZZ.ZZ9	ZZ.ZZ9	ZZ.ZZ9	
ZZ.ZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9					
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.ZZ9ZZ.ZZ9		ZZ.ZZ9	ZZ.ZZZ9	ZZ.ZZZ9	ZZ.ZZZ9

SUBAPPENDIX D

PAPER COPY OF THIS REPORT TO BE PROVIDED

SUBAPPENDIX E
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/ Last Number Redial ..... This feature allows a customer to redial a number when a Busy signal is encountered.

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 POPULATE WITH **'00001'**
MISCELLANEOUS *TEXT CODE	POSITIONS 168 - 172	2) CALL RETURN/LAST NUMBER REDIAL POPULATE WITH **'00002'**
MISCELLANEOUS TEXT CODE	POSITIONS 168 - 172	3) CALL TRACE POPULATE WITH **'00003'**
MISCELLANEOUS TEXT CODE	POSITIONS 168-172	4) 3-WAY CALLING POPULATE WITH **'00004'**
MISCELLANEOUS TEXT CODE	POSITIONS 168-172	5) AUTOMATIC RETIAL POPULATE WITH **'00005'**

NOTE: For fields not specifically defined, the standard EMR format for a 425001 record should be used.

LOCAL NUMBER PORTABILITY

1. **BellSouth Provision of Local Number Portability**

BellSouth shall provide number portability in accordance with requirements of the Act. Interim Number Portability (INP) will be provided by BellSouth 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. BellSouth 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 ("RCF"), Route Indexing, or Local Exchange Routing Guide (LERG) reassignment. In addition to providing RCF, BellSouth agrees to provide Route Indexing and LERG reassignment in every local service office. AT&T shall specify on a per telephone number basis which method is to be employed and BellSouth shall provide such method to the extent technically feasible.

2.1 **Remote Call Forwarding**

Remote Call Forwarding (RCF) is an existing switch-based BellSouth 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 BellSouth switch to which the ported number was previously assigned. TheBellSouth 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).

OC2382

2.2.1 RI-PH will route a dialed call to the BellSouth switch associated with the NXX of the dialed number. The BellSouth 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 BellSouth 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 BellSouth switch to which the ported number was originally assigned and the AT&T switch to which the number has been ported. The BellSouth switch shall send the originally dialed number to the AT&T switch without a prefix.

2.2.3 BellSouth 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 and toll traffic with BellSouth. 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 BellSouth switching office from which the telephone number is ported will be made by the BellSouth 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 BellSouth 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 BellSouth network.

2.4.2 BellSouth 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. BellSouth 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 BellSouth 911 infrastructure for all 911 capabilities. With respect to 911 service associated with ported numbers under INP, BellSouth 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.

2.4.4 BellSouth shall bill and AT&T shall pay the rates set forth in Part IV for INP. Billing and payment shall be in accordance with the applicable terms and conditions set forth in this Rates Agreement.

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 BellSouth 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 BellSouth network for calls completing to its ported customers.

3.2 **Joint Cooperation**

Both AT&T and BellSouth 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)**

BellSouth 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 BellSouth or other carriers needlessly in the call path.

3.3.3 BellSouth 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 BellSouth 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, BellSouth 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 BellSouth 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 BellSouth 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**

BellSouth 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. BellSouth 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

BellSouth 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 BellSouth, 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 BellSouth to its own subscribers.

4.2 Cut-Over Process

BellSouth 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

BellSouth and AT&T shall cooperate in conducting AT&T's testing to ensure interconnectivity between systems. BellSouth shall inform AT&T of any system updates that may affect the AT&T network and BellSouth 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

BellSouth 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

BellSouth 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 BellSouth 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**

BellSouth 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 BellSouth 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 BellSouth 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 BellSouth must pay charges to AT&T for BellSouth 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 BellSouth 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, BellSouth 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, BellSouth 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 BellSouth 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 BellSouth shall remove from its Line Information Data Base (LIDB) all existing BellSouth issued Telephone Line Number (TLN)-based card numbers when a customer ports their number to AT&T.

4.7.1.4 BellSouth 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. BellSouth shall continue to allow AT&T access to its LIDB. Other LIDB provisions are specified in this Agreement.

4.7.1.5 Where BellSouth has control of directory listings for NXX codes containing ported numbers, BellSouth 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, BellSouth 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 BellSouth 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 BellSouth 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]

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NETWORK SECURITY

NETWORK SECURITY

1. **Protection of Service and Property**

BellSouth shall exercise the highest degree of care to prevent harm or damage to AT&T, its employees, agents or customers, or their property. BellSouth, 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.

1.2 Furnishing to AT&T a current written list of BellSouth's employees who BellSouth authorizes to enter spaces which house or contain AT&T equipment or equipment enclosures, including caged areas, 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 Agreeing not to use 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 Insure that the area which houses AT&T's equipment is 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 leads to spaces which contain or house AT&T equipment or equipment enclosures.

1.9 Controlling unauthorized access from passenger and freight elevators by continuous surveillance or by installing security partitions, security grills, locked gates or doors between elevator lobbies and spaces which contain or house AT&T equipment or equipment enclosures.

1.10 Providing real time notification to designated AT&T personnel to indicate an actual or attempted security breach.

1.11 Providing an acceptable back-up and recovery plan to be used in the event of a system failure or emergency.

1.12 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.

1.13 Logical Security:

- assuring that all approved system and modem access be secured through security servers. Access to or connection with a network element shall be established through a secure network or security gateway.
- agreeing to comply with AT&T Corporate Security Instruction 3.03 "Computer Security Requirements," March 1993, and AT&T Network Security Requirements 4.0, March 1996.

2. **Revenue Protection**

2.1 BellSouth 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. BellSouth shall additionally provide partitioned access to fraud prevention, detection and control functionality within pertinent Operations Support Systems ("OSS").

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.

2.2 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.

2.3 BellSouth 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. BellSouth shall provide soft dial tone to allow only the completion of calls to final termination points required by law.

3. **Law Enforcement Interface**

BellSouth shall provide seven day a week/ twenty-four hour a day installation and information retrieval pertaining to traps, assistance involving emergency traces and information retrieval on customer invoked CLASS services, including, without limitation, call traces requested by AT&T. BellSouth shall provide all necessary assistance to facilitate the execution of wiretap or dialed number recorder orders from law enforcement authorities.

ACRONYM	DEFINITION
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
CABS	Carrier Access Billing Systems
CAMA ANI	Centralized Automatic Message Accounting - Automatic Number Identification
CAP	Competitive Access Provider
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
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
CY	Current Year
DA	Directory Assistance
DACS	Digital Access Crossconnect Systems
DB	Database

*Combo of: Local Switching, Common Transport, Signaling, Databases & Tandem Switching

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
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
INP	Interim Number Portability
ISDN	Integrated Services Digital Network
ISDNUP	Integrated Services Digital Network User Part
ISNI	Intermediate Signal Network Identifier
ISO	International Standardization Organization
ISUP	Integrated Services User Part
ITU	International Telecommunications Union
IVMS	Interswitch Voice Messaging Service
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
LEC SMS	LEC Service Management System
LEC SSP	LEC Service Switching Point
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
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
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
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
PBX	Private Branch Exchange
PDH	Plesiochronous Digital Hierarchy
PEC	Primary Exchange Carrier
PIC	Primary Interexchange 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
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
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

"**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.

"**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.

"**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.

"**Bill and Keep**" is a reciprocal compensation arrangement whereby the compensation that one company offers to another for the completion of its calls is the agreement to complete the other company's calls in a like manner.

"**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.

"CENTREX" 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 and includes BellSouth's ESSX®, MultiServe®, Prestige® and other similar services.

"CLASS (Custom Local Area Signaling Service) and Custom Features" 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" has the meaning set forth in Attachment 3.

"Combinations" consist of multiple Network 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" has the meaning set forth in Attachment 3.

"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.

"CRIS/CLUB" [to be provided]

"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 BellSouth and forwarded to AT&T.

"Dark Fiber" has the meaning set forth in Attachment 3.

"Directory Listings" has the meaning set forth in Section 20.1 of Attachment I.

"Discloser" means that party to this Agreement which has disclosed Confidential Information to the other party.

"Effective Date" is the date indicated in the Preface on which the Agreement shall become effective.

"**EMR**" means the Exchange Message Record System used among LECs 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.

"**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.

"**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.

"**Interconnection**" is defined as the act of linking two or more telecommunications networks for the purpose of terminating local telephone calls.

"**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 ILECs and

other entities which provide, among other things, calling card validation functionality for telephone line number cards issued by ILECs 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.

"**Local Traffic**" means any telephone call that originates and terminates in the same LATA and is billed by the originating party as a local call, including any call terminating in an exchange outside of BellSouth's service area with respect to which BellSouth has a local interconnection agreement with an independent LEC, with which AT&T is not directly interconnected.

"**MECAB**" means the Multiple Exchange Carrier Access Billing document prepared under the direction the Billing Committee of the OBF. The Multiple Exchange Carrier Access Billing 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 LECs (including LECs and CLECs), or by one LEC or CLEC 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. 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 LECs and CLECs), 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 BellSouth.

"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" has the meaning set forth in Attachment 3.

"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.

"Retail Rates" means the lowest prices that BellSouth actually charges its customers.

"Rights of Way (ROW)" has the meaning set forth in Attachment 3.

"RLEC" The terms Regional Local Exchange Company ("RLEC"), Local Exchange Company ("LEC"), and Incumbent Local Exchange ("ILEC") are used interchangeably throughout this Agreement.

"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.

"**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.

"**Total Service Long Run Incremental Cost (TSLRIC)**" is the cost of the forward looking least cost technology of providing a service, relevant group of services, or basic network elements, given that the company already produces all of its services. Alternatively, TSLRIC represents the costs avoided if the telecommunications provider had never offered the particular service, group of services, or network element in question.

"**Unused Transmission Media**" has the meaning set forth in Attachment 3.

"**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 BellSouth 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, BellSouth 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 BellSouth owns, leases or licenses or in which it holds easements or other rights to use, or does use, in connection with this Agreement.

1. Credits for Failure to Meet DMOQs

AT&T will offset against charges due to BellSouth the amounts specified in this Attachment for delays in the provision of Local Services, Network Elements or Combinations, failures to meet the DMOQs required by this Agreement or delays in the provision of Customer Usage Data or failures to provide such data in accordance with the requirements of this Agreement. Unless otherwise specified, performance against DMOQs will be measured on a monthly basis.

2. Delay Credits for Local Services, Network Elements and Combination

2.1 Customer Specific Local Services, Network Elements, and Combinations

If BellSouth does not satisfy a DMOQ standard specified in Section 28.6 of Part 1 (Intervals for the provisioning/installation of Local Service) or Section 9.5 of Attachment 4 (Desired Delivery Date, Committed Delivery Date, and Completion Without Error for the provisioning/installation of Unbundled Network Elements), BellSouth will be liable to AT&T for liquidated damages for each and every Service Order for customer specific Local Services, Network Elements, and Combinations that have been delayed or not properly completed. Liquidated damages shall consist of: (i) a waiver of any associated provisioning/installation charge; and (ii) a delay credit equal to the associated monthly charge for the Service, Network Element or Combination for each month or partial month of delay. If a single Service Order fails to meet two or more DMOQs, BellSouth will be liable only for the category of liquidated damages that results in the highest amount.

2.2 Non-Customer Specific Network Elements and Combinations

If BellSouth does not satisfy a DMOQ standard specified in Section 9.5 of Attachment 4 (Desired Delivery Date, Committed Delivery Date, and Completion Without Error for the provisioning/installation of Unbundled Network Elements), BellSouth will be liable to AT&T for liquidated damages ("Delay Credit") for each and every Service Order for non-customer specific Network Elements and Combinations that have been delayed or not properly completed. The Delay Credit shall consist of: (i) a waiver of any associated provisioning/installation charge; and (ii) a delay credit equal to $25,000 per day for each day of delay. If a single Service Order fails to meet two or more DMOQs and consequently accrues two or more Delay Credits, BellSouth will be liable only for the Delay Credit that would result in the highest amount.

3. Performance Failure Credits for Local Services, Network Elements and Combinations

3.1 If BellSouth does not satisfy a DMOQ standard specified in Sections 9.6 and 9.7 of Attachment 5, BellSouth will be liable for liquidated damages ("Performance Failure Credit") in the amounts set forth below for each and every outage/trouble call that is not restored/resolved in the specified interval. If restoration of a particular outage fails to meet two or more DMOQs and consequently accrues two Performance Failure Credits, BellSouth will be liable only for the Performance Failure Credit that would result in the highest amount.

Interval	Standard	Performance Failure Credit (per line or equivalent DSO circuit, per 24 hour period or part thereof)
Outage Requiring Premises Visit*		
	4 hours	90% $ 50.00
	8 hours	95% $ 75 00
	16 hours	99% $100.00
Outage Not Requiring Premises Visit		
	2 hours	85% $ 50.00
	3 hours	95% $ 75 00
	4 hours	99% $100.00
Trouble Calls	24 hours	95% $ 75.00

* Referrals received between 6:00 P.M. and 8:00 A.M. shall be treated as though it was received at 8:00 A.M. for DMOQ purposes.

4. Credits for Delayed or Improperly Provided Customer Usage Data

4.1 If BellSouth fails to satisfy the "Does-Not-Meet-Expectations" Rating Criteria set forth in Appendix 1 to Attachment 7 of this Agreement for providing Customer Usage Data, BellSouth will be liable for liquidated damages ("Customer Usage Credit") for each day that such data is delayed. The daily amount of the Customer Usage Credit shall be calculated using the following formula:

$$\frac{\text{(Number of Messages Delayed x Average Revenue Per Message)}}{30}$$

AT&T shall provide the Average Revenue Per Message

SUBJECT TO NEGOTIATIONS

AGREEMENT

In consideration of the mutual promises contained herein, BellSouth Advertising & Publishing Corporation, a Georgia corporation ("BAPCO") and AT&T Corp., a New York corporation ("CARRIER") agree as follows:

1. RECITALS. BAPCO is the publisher of alphabetical and classified directories for certain communities in the southeastern region of the U.S. (the "Directories"). CARRIER provides, or intends to provide, local exchange telephone service in communities in which BAPCO publishes Directories. BAPCO and CARRIER hereby establish the terms by which BAPCO will include listings of CARRIER subscribers in such Directories and by which BAPCO will provide such Directories to CARRIER subscribers.

2. CARRIER OBLIGATIONS. CARRIER agrees as follows:

(a) CARRIER shall provide to BAPCO, or its designee, at CARRIER's expense and at no charge, listing information concerning its subscribers (designating any who do not desire published listings), consisting of customer name, address, telephone number and all other information reasonably requested by BAPCO as set forth on Exhibit A for use by BAPCO or its affiliates or agents in publishing Directories of whatever type and format and for other derivative purposes such as electronic directories or publishing. Such subscriber listing information shall be provided in the format and on the schedule set forth in said Exhibit, or as otherwise mutually agreed between the parties from time to time.

(b) CARRIER shall also provide directory delivery information to BAPCO as set forth in Exhibit A for all subscribers.

(c) CARRIER shall advise BAPCO promptly of any directory-related inquiries, requests or complaints which it may receive from CARRIER subscribers and shall provide reasonable cooperation to BAPCO in response to or resolution of the same.

(d) CARRIER shall respond promptly regarding corrections or queries raised by BAPCO to process listing changes requested by subscribers.

3. BAPCO OBLIGATIONS. BAPCO agrees as follows:

(a) BAPCO shall include at no charge to CARRIER or CARRIER's subscribers one standard listing for each CARRIER subscriber per hunting group in BAPCO's appropriate local alphabetical Directory as published periodically by BAPCO unless notified or nonpublished status is designated by subscribers. Such listings shall be interfiled with the listings of other local exchange telephone company subscribers and otherwise published in the manner of such other listings according to BAPCO's generally applicable publishing policies and standards without designation as to the subscriber's exchange carrier.

(b) BAPCO will accept and publish ads for CARRIER'S subscribers, in BAPCO'S various directories, on a non-discriminatory basis, on the same terms and conditions, and at the same charges, as those applicable to BellSouth Communications, Inc. ("BellSouth") subscribers.

(c) Provided CARRIER is engaged in negotiations with BellSouth to establish appropriate resale/interconnection arrangements, BAPCO shall publish additional listings, foreign listings and all other alphabetical Directory listings offered by BellSouth, for CARRIER subscribers upon their request, consistent with BAPCO's generally applicable policies in BAPCO's alphabetical Directories. As used herein, the term "negotiations" includes mediation, arbitration and any other legal action, undertaken by either party, to effectuate resale/interconnection arrangements.

(d) BAPCO will distribute its regularly published alphabetical and classified Directories to local CARRIER subscribers in accordance with BAPCO's prevailing practices, including delivery following Directory publication and upon establishment of new CARRIER service, if a current Directory for that geographic area has not previously been provided. Such deliveries may include separate advertising materials accompanying the Directories.

(e) BAPCO will include CARRIER information in the customer guide pages of its alphabetical Directories where similar information is provided for BellSouth, for communities where CARRIER provides local exchange telephone service at the time of publication, and for those communities CARRIER has advised BAPCO it intends to provide local exchange telephone service prior to the next scheduled date of directory publication provided (i) CARRIER is authorized to provide local exchange telephone service within the applicable state, (ii) CARRIER certifies to BAPCO a service commencement date that it is reasonably certain it can meet; and (iii) the telephone numbers to be listed for the CARRIER are operational and answered either by a live attendant or appropriate recorded announcement. CARRIER will provide information requested by BAPCO for such purpose on a timely basis.

BAPCO shall include CARRIER's name on applicable Directory covers, without additional charge, unless more than five (5) other carriers have made such requests, in which case BAPCO may use applicable objective criteria (e.g. total number of local customers; total corporate assets; total revenues derived from other telephone services, etc.) to determine which five carriers' names will so appear on the cover.

(f) BAPCO shall make available at no charge to CARRIER or its subscribers one listing for CARRIER business customers per hunting group in one appropriate heading in BAPCO's appropriate local classified directory as published periodically by BAPCO. Such listings shall be published according to BAPCO's generally applicable publishing policies and standards.

(g) BAPCO agrees to solicit, accept and publish directory advertising from business subscribers for CARRIER in communities for which BAPCO publishes classified Directories in the same manner and upon substantially the same terms as it solicits, accepts and publishes advertising from advertisers who are not CARRIER subscribers.

(h) BAPCO shall not provide listing information relating to CARRIER subscribers to other local exchange providers, including BellSouth, or independent directory publishers without CARRIER approval, except as may be required in relation to this Agreement or as otherwise required by law.

4. PUBLISHING POLICIES. BAPCO shall maintain full authority over its publishing schedules, policies, standards, and practices and over the scope and publishing schedules of its Directories. BAPCO shall periodically provide CARRIER with changes by BAPCO in the same which in BAPCO's judgment affect CARRIER's conduct in BAPCO's publishing of listings for CARRIER's subscribers. Such policy updates shall include, without limitation, the subjects listed in Exhibit __.(To be supplied by BAPCO.)

5. LIABILITY AND INDEMNITY.

(a) Except to the extent caused by BAPCO's willful or wanton misconduct, BAPCO's liability to CARRIER for any errors or omissions in any residential subscriber listing in any directory published by BAPCO, shall be limited to One Dollar($1) for each such claim.

(b) Except as provided above, each party agrees to defend, indemnify and hold harmless the other from all damages, claims, suits, losses or expenses, including without limitation reasonable costs and reasonable attorneys fees, to the extent of such party's relative fault, arising out of or resulting from any error, omission or act of such party hereunder. Each party shall notify in writing the other promptly of any claimed error, act or omission which may give rise to a claim hereunder, and of any claim or suit arising hereunder or relating to this Agreement and each party shall provide reasonable and timely cooperation in its resolution of the same. Without waiver of any rights hereunder, the indemnified party may at its expense undertake its own defense in any such claim or suit.

(c) CARRIER agrees to limit its liability and that of BAPCO in any contract it enters with its subscribers, for any claim hereunder, to the subscriber's cost of service for the period of such act or omission.

(d) CARRIER agrees to include in any local service tariff it files, a provision limiting its liability, and to the degree permitted by law, and that of BAPCO, for any claims relating to directory listings or ads, to the subscribers' cost of local service and or the cost of the particular listing.

6. TERM. This Agreement shall be effective on the date of the last signature hereto for a term of two (2) years and shall relate to Directories published by

BAPCO during such period. Thereafter, it shall continue in effect unless terminated by either party upon sixty (60) days prior written notice.

7. ASSIGNMENT. This Agreement shall be binding upon any successors or assigns of the parties during its Term.

8. RELATIONSHIP TO THE PARTIES. This Agreement does not create any joint venture, partnership or employment relationship between the parties or their employees, and the relationship between the parities shall be that of an independent contractor. There shall be no intended third party beneficiaries to this Agreement.

9. NONDISCLOSURE.

(a) During the term of this Agreement it may be necessary for the parties to provide each other with certain information ("Information") considered to be private or proprietary. The recipient shall protect such Information from distribution, disclosure or dissemination to anyone except its employees or contractors with a need to know such Information in conjunction herewith, except as otherwise authorized in writing. All such Information shall be in writing or other tangible form and clearly marked with a confidential or proprietary legend. Information conveyed orally shall be designated as proprietary or confidential at the time or such oral conveyance and shall be reduced to writing within forty-five (45) days.

(b) The parties will not have an obligation to protect any portion of Information which: (1) is made publicly available lawfully by a nonparty to this Agreement; (2) is lawfully obtained from any source other than the providing party; (3) is previously known without an obligation to keep it confidential; (4) is released by the providing party in writing; or (5) commencing two (2) years after the termination date of this Agreement if such Information is not a trade secret under applicable law.

(c) Each party will make copies of the Information only as necessary for its use under the terms hereof, and each such copy will be marked with the same proprietary notices as appear on the originals. Each party agrees to use the Information solely in support of this Agreement and for no other purpose.

10. FORCE MAJEURE. Neither party shall be responsible to the other for any delay or failure to perform hereunder to the extent caused by fire, flood, explosion, war, strike, riot, embargo, governmental requirements, civic or military authority, act of God, or other similar cause beyond its reasonable control. Each party shall use best efforts to notify the other promptly of any such delay or failure and shall provide reasonable cooperation to ameliorate the effects thereof.

11. PUBLICITY. Neither party shall disclose the terms of this Agreement nor use the trade names or trademarks of the other without the prior express written consent of the other.

12. REPRESENTATIVE AND NOTICES.

(a) Each party shall name one or more representatives for contacts between the parties which shall be authorized to act on its behalf. Such representatives may be changed from time to time upon written notice to the other party.

(b) Notices required by law or under this Agreement shall be given in writing by hand delivery, certified or registered mail, or by facsimile followed by certified or registered mail, addressed to the named representatives of the parties with copies to:

If to BAPCO:

Director-LEC/BST Interface
BellSouth Advertising & Publishing Corporation
Room 270
59 Executive Park South
Atlanta, GA 30329

With Copy to:

Vice President and General Counsel
BellSouth Advertising & Publishing Corporation
Room 430
59 Executive Park South
Atlanta, GA 30329

If to CARRIER:

With Copy to: Norman H. Rosner
Senior Attorney
1200 Peachtree Street, NE
Room 4080
Atlanta, GA 30309

13. MISCELLANEOUS. This Agreement represents the entire Agreement between the parties with respect to the subject matter hereof and supersedes any previous oral or written communications, representations, understandings, or agreements with respect thereto. It may be executed in counterparts, each of which shall be deemed an original. All prior and contemporaneous written or oral agreements, representations, warranties, statements, negotiations, and/or understandings by and between the parties, whether express or implied, are superseded, and there are no representations or warranties, either oral or written, express or implied, not herein contained. This Agreement shall be governed by the laws of the state of Georgia.

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representative in one or more counterparts, each of which shall constitute an original, on the dates set forth below.

BELLSOUTH ADVERTISING & PUBLISHING CORPORATION

{_____

By:

Title:

Date:

AT&T CORP.:

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____