

GTE Telephone Operations

P.O. Box 1003 Everett, WA 98206-1003 206 261-5321

Reply To: WA0101RA

October 31, 1997

Mr. Steve McLellan Washington Utilities and Transportation Commission Chandler Plaza Building 1300 S. Evergreen Park Drive SW Olympia, Washington 98504

Dear Mr. McLellan:

Subject:

DOCKET NO. UT-970324: INTERCONNECTION AGREEMENT BETWEEN GTE NORTHWEST INCORPORATED (GTENW) AND GST LIGHTWAVE

(WA) INC, ("GST")

Enclosed is the GST adoption of the arbitrated Interconnection Agreement between GTENW and MCImetro Access Transmission Services, Inc. (MCI) under Section 252(i) of the Telecommunications Act of 1996. The Commission originally approved the enclosed agreement with MCImetro's name on the contract, August 27, 1997. Based upon discussions with Terry Stapleton and Jeff Goltz of the WUTC and Randy Vogelzang of GTE Legal, it was determined that the enclosed agreement replacing the name MCImetro with GST at each occurrence in the original MCImetro agreement is required. The enclosed agreement with GST's name is being submitted as the replacement for the document that reflects MCI's name.

GTENW is not voluntarily entering the arbitrated agreement with GST, and does not waive any rights and remedies it has concerning its position as to the illegality or unreasonableness of the Terms of the arbitrated agreement. GTENW does not concede that any of the provisions of the adopted agreement that are inconsistent with the July 18, 1997 opinion of the United States Eighth Circuit Court of Appeals are effective. Any E-mailed gottpainer modification to the underlying adopted agreement shall automatically apply to GST. GTENW is preserving its legal positions in every respect as to the arbitrated agreement in the hands of GST, as well as in the hands of MCI.

Mr. Steve McLellan October 31, 1997 Page 2

If you have any questions concerning this revised agreement, please contact Bill Luce of my staff at 425/261-5566.

Very truly yours,

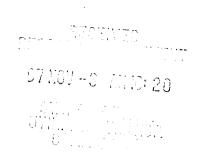
Lida C. Tong

State Director - External Affairs

Shan C Ing

[BL:sd:\j:\iagroup\wpfiles\bilf\gstagr.ltr]

Enclosure



INTERCONNECTION, RESALE

AND UNBUNDLING AGREEMENT

BETWEEN

GTE NORTHWEST INCORPORATED

AND

GST

"GST-GTE Interconnection Agreement - Washington"

MAY 3, 1997

INTERCONNECTION, RESALE AND UNBUNDLING AGREEMENT BETWEEN GTE NORTHWEST INCORPORATED AND GST

"GST-GTE Interconnection Agreement - Washington"

May 3, 1997

INTERCONNECTION, RESALE AND UNBUNDLING AGREEMENT

BETWEEN

GTE NORTHWEST INCORPORATED

AND

GST

TABLE OF CONTENTS

ARTICLE I. RECITALS

ARTICLE II. DEFINITIONS

<u>Section</u>	<u>Page</u>
1. General Definitions	1
ARTICLE III. GENERAL PROVISIONS	
<u>Section</u>	<u>Page</u>
1. Provision of Service	
2. Combinations	
3. Term of Agreement; Transition Support	
4. Good Faith Performance.	
5. Breach	
6. Amendments and Modifications	
7. Assignment	3
8. Authority	
9. Billing and Payment	4
10. Binding Effect	
11. Compliance with Laws and Regulations	
12. Confidential Information	4
13. Revenue Protection	6
14. Bona Fide Request Process	7
15. Branding	
16. Force Majeure	
17. Governing Law	
18. Headings Not Controlling	
19. Relationship of Parties	9
20. Indemnification.	
21. Continuing Obligations	
22. [Section 22 is Reserved]	12
23. Intellectual Property	12
24. Remedies	12
25. Third Party Beneficiaries	13
26. Notices	13
27. [Section 27 is Reserved]	14
28. Impairment of Service	14
	Art I - 2

29. Publicity	14
30. Regulatory Approvals	14
31. Rules of Construction	
32. Section References	14
33. Severability	14
34. Waiver	
35. Subsequent Law	
36. Subcontractors	
37. Taxes	
38. [Section 38 is Reserved]	16
39. Responsibility for Environmental Contamination	16
40. Dispute Resolution	17
41. Reference Documents	18
42. Multiple Counterparts	18
43. No Offer	18
44. Entire Agreement	18
45. Survival	19
ARTICLE IV. INTERCONNECTION	
ARTICLE IV. INTERCONNECTION	Page
Section	<u>Page</u> 1
Section 1. Interconnection Services Covered by This Article	1
Section 1. Interconnection Services Covered by This Article	1 2
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic	1 2 2
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic 4. Direct Network Interconnection	1 2 2 5
Section 1. Interconnection Services Covered by This Article	122511
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic 4. Direct Network Interconnection 5. Indirect Network Interconnection 6. Meet Point Billing	
Section 1. Interconnection Services Covered by This Article	
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic 4. Direct Network Interconnection 5. Indirect Network Interconnection 6. Meet Point Billing	
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic. 4. Direct Network Interconnection 5. Indirect Network Interconnection. 6. Meet Point Billing 7. Common Channel Signaling. 8. Network Management	
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic 4. Direct Network Interconnection 5. Indirect Network Interconnection 6. Meet Point Billing 7. Common Channel Signaling. 8. Network Management 9. Responsibilities Of The Parties	
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic. 4. Direct Network Interconnection 5. Indirect Network Interconnection. 6. Meet Point Billing 7. Common Channel Signaling. 8. Network Management	
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic 4. Direct Network Interconnection 5. Indirect Network Interconnection 6. Meet Point Billing 7. Common Channel Signaling. 8. Network Management 9. Responsibilities Of The Parties	
Section 1. Interconnection Services Covered by This Article	
Section 1. Interconnection Services Covered by This Article 2. Billing and Rates 3. Transport and Termination of Traffic 4. Direct Network Interconnection 5. Indirect Network Interconnection 6. Meet Point Billing 7. Common Channel Signaling 8. Network Management 9. Responsibilities Of The Parties ARTICLE V. RESALE OF SERVICES Section	
Section 1. Interconnection Services Covered by This Article	

ARTICLE VI. UNBUNDLED NETWORK ELEMENTS

<u>Section</u>	<u>Page</u>
1. Introduction	
2. Unbundled Network Elements	
3. Requirements	2
4. Network Interface Device	3
5. Loop Elements	6
6. Distribution	17
7. Local Switching	19
8. Common Transport	28
9. Dedicated Transport	
10. Signaling Link Transport	36
11. Signal Transfer Points (STPs)	
12. Service Control Points Databases	43
13. Directory Assistance Listing Information	
14. Data Switching	
15. Digital Cross-Connect System (DCS)	51
16. Advanced Intelligent Network (AIN) Access	
17. Tandem Switching.	57
18. Unused Transmission Media (Dark Fiber)	
19. Additional Requirements	
ARTICLE VII. ANCILLARY SERVICES	
Section 1. Transfer of Service Announcements	
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls.	1
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements.	1 1
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service	1 1 1
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services.	119
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service 5. Operator Services. 6. Directory Assistance and Listings Service Requests.	1 1 9 11
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services.	1 1 9 11
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services. 6. Directory Assistance and Listings Service Requests. 7. Busy Line Verification and Interrupt. ARTICLE VIII. BUSINESS PROCESS	
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services. 6. Directory Assistance and Listings Service Requests. 7. Busy Line Verification and Interrupt. ARTICLE VIII. BUSINESS PROCESS Section	11
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services. 6. Directory Assistance and Listings Service Requests. 7. Busy Line Verification and Interrupt. ARTICLE VIII. BUSINESS PROCESS Section 1. General Business Requirements.	111
Section 1. Transfer of Service Announcements	1
Section 1. Transfer of Service Announcements	11
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services. 6. Directory Assistance and Listings Service Requests. 7. Busy Line Verification and Interrupt. ARTICLE VIII. BUSINESS PROCESS Section 1. General Business Requirements. 2. Pre-Ordering. 3. Ordering and Provisioning. 4. Connectivity Billing and Recording.	
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services. 6. Directory Assistance and Listings Service Requests. 7. Busy Line Verification and Interrupt. ARTICLE VIII. BUSINESS PROCESS Section 1. General Business Requirements. 2. Pre-Ordering. 3. Ordering and Provisioning. 4. Connectivity Billing and Recording. 5. Information Exchange and Interfaces.	1
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services. 6. Directory Assistance and Listings Service Requests. 7. Busy Line Verification and Interrupt. ARTICLE VIII. BUSINESS PROCESS Section 1. General Business Requirements. 2. Pre-Ordering. 3. Ordering and Provisioning. 4. Connectivity Billing and Recording. 5. Information Exchange and Interfaces. 6. Provision Of Customer Usage Data.	1
Section 1. Transfer of Service Announcements. 2. Coordinated Repair Calls. 3. 911/E911 Arrangements. 4. Directory Assistance Service. 5. Operator Services. 6. Directory Assistance and Listings Service Requests. 7. Busy Line Verification and Interrupt. ARTICLE VIII. BUSINESS PROCESS Section 1. General Business Requirements. 2. Pre-Ordering. 3. Ordering and Provisioning. 4. Connectivity Billing and Recording. 5. Information Exchange and Interfaces.	1

8. Service Standards and Reporting	46
ARTICLE IX. COLLOCATION	
Continu	Daga
<u>Section</u>	<u>Page</u>
1. General Terms	
2. Requests For Collocation Space.	
3. Connection to Customer Loops and Ports	
4. Connection To Other Collocated Carrier	
5. Approved Equipment and Vendor.	
6. Telephone Service	
7. Intraoffice Diversity	
8. GST Proprietary Information	
9. Notification.	
10. Construction of Space	
11. Connection Equipment.	
12. Security of and Access to GST Collocation Space	
13. Environmental Conditions	
14. Power	6
15. Environmental Support	8
16. Access to Ancillary Facilities	8
17. Maintenance of Virtually Collocated Equipment	9
18. Lease	9
19. Technical References	9
20. Virtual Collocation	9
ARTICLE X. RIGHTS OF WAY	_
<u>Section</u>	<u>Page</u>
1. Rights of Access.	1
2. Definitions	
3. Non-discriminatory Access and Maintenance Spares	2
4. Grant of License.	
5. Attachment Requests (ARs)	2
6. Review of GTE Plans and Records.	4
7. Placement of Attachments	5
8. Attachment Fees	6
9. Occupancy Fees	6
10. Modifications, Additions or Replacements to Existing Attachments	
11. Surveys and Inspections of Pole Attachments	
12. Modification or Alteration GTE Conduits or Poles	
13. Emergency Restoration Procedures	
14. Access to GTE's Manholes/Handholes	
	Art I - 5

15. Charges for Unauthorized Attachments	10 10
17. Insurance	
18. Capacity Expansions	11
19. General Provisions	12
ARTICLE XI. NUMBERING RESOURCES AND PORTABILITY	
Section Po	age
1. Number Resources	
2. Interim Number Portability	2
3. Number Portability	
4. Requirements for INP	7
ARTICLE XII. [RESERVED]	
ARTICLE XIII. SECURITY	
Section Pe	age
Section 1. Physical Security	1
Section 1. Physical Security	1
Section 1. Physical Security	1
Section 1. Physical Security 2. Network Security 3. Law Enforcement Interface	2
Section 1. Physical Security	2
Section 1. Physical Security 2. Network Security 3. Law Enforcement Interface APPENDICES	2
Section 1. Physical Security 2. Network Security 3. Law Enforcement Interface APPENDICES APPENDIX A SERVICE MATRIX	2
Section 1. Physical Security 2. Network Security 3. Law Enforcement Interface APPENDICES APPENDIX A SERVICE MATRIX APPENDIX B INTERCONNECTION, TELECOMMUNICATIONS SERVICES AND	2
Section 1. Physical Security 2. Network Security 3. Law Enforcement Interface APPENDICES APPENDIX A SERVICE MATRIX APPENDIX B INTERCONNECTION, TELECOMMUNICATIONS SERVICES AND FACILITIES AGREEMENT	2
Section 1. Physical Security 2. Network Security 3. Law Enforcement Interface APPENDICES APPENDIX A SERVICE MATRIX APPENDIX B INTERCONNECTION, TELECOMMUNICATIONS SERVICES AND FACILITIES AGREEMENT APPENDIX C PRICING	2
Section 1. Physical Security	2
Section 1. Physical Security 2. Network Security 3. Law Enforcement Interface APPENDICES APPENDIX A SERVICE MATRIX APPENDIX B INTERCONNECTION, TELECOMMUNICATIONS SERVICES AND FACILITIES AGREEMENT APPENDIX C PRICING	2

ARTICLE I

RECITALS

This GST/GTE Interconnection Agreement 1997 (the "Agreement"), effective May 3, 1997 (the "Effective Date"), is entered into by and between GST and GTE Northwest Incorporated ("GTE") (GST and GTE are referred to individually as a "Party" or collectively as the "Parties"), to establish the rates, terms and conditions for interconnection, local resale, and purchase of unbundled Network Elements (individually referred to as the "service" or collectively as the "services").

WHEREAS, the Parties wish to interconnect their local exchange networks in a technically and economically efficient manner for the transmission and termination of calls, so that subscribers of each can seamlessly receive calls that originate on the other's network and place calls that terminate on the other's network, and for GST's use in the provision of exchange access ("Interconnection"); and

WHEREAS, GST wishes to purchase Telecommunications Services for resale to others ("Local Resale" or "Services for Resale"), and GTE is willing to provide such service; and

WHEREAS, GST wishes to purchase on an unbundled basis network elements, ancillary services and functions and additional features ("Network Elements"), separately or in any combination, and to use such services for itself or for the provision of its Telecommunications Services to others, and GTE is willing to provide such services; and

WHEREAS, the Parties intend the rates, terms and conditions of this Agreement, and their performance of obligations thereunder, to comply with the Communications Act of 1934, as amended (the "Act"), the Rules and Regulations of the Federal Communications Commission ("FCC"), and the orders, rules and regulations of the Washington Utilities and Transportation Commission (the "Commission");

NOW, THEREFORE, in consideration of the mutual provisions contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, GTE and GST hereby covenant and agree as follows:

ARTICLE II

DEFINITIONS

- 1. <u>General Definitions</u>. Except as otherwise specified herein, the following definitions shall apply to all Articles and Appendices contained in this Agreement. Additional definitions that are specific to the matters covered in a particular Article or Appendix may appear in that Article or Appendix. To the extent that there may be any conflict between a definition set forth in this Article II and any definition in a specific Article or Appendix, the definition set forth in the specific Article or Appendix shall control with respect to that Article or Appendix.
 - 1.1 "911 SERVICE" means a universal telephone number which gives the public direct access to the Public Safety Answering Point ("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.
 - 1.2 "ASR" (ACCESS SERVICE REQUEST) means the industry standard forms and supporting documentation used for ordering Access Services. The ASR may be used to order trunking and facilities between GST and GTE for Local Interconnection.
 - 1.3 "ACCESS SERVICES" refers to interstate and intrastate switched access and private line transport services.
 - 1.4 "ACT" means the Communications Act of 1934 as amended.
 - 1.5 "AFFILIATE" is an entity that directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or control with, another entity. In this paragraph, "own" or "control" means to own an equity interest (or equivalent) of at least 10% with respect to GTE, or the right to control the business decisions, management and policy of another entity.
 - 1.6 "AIN" (ADVANCED INTELLIGENT NETWORK) 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.
 - 1.7 "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.

- 1.8 "ALI" (AUTOMATIC LOCATION IDENTIFICATION) is a proprietary database developed for E911 systems that provides for a visual display of the caller's telephone number, address and the names of the emergency response agencies that are responsible for that address. The Alternative Local Exchange Company will provide ALI record information in National Emergency Number Association ("NENA") Version #2 format. The ALI also shows an Interim Number Portability ("INP") number if applicable.
- 1.9 "ALI/DMS" (AUTOMATIC LOCATION IDENTIFICATION/DATA MANAGEMENT SYSTEM) means the emergency service ("E911/911") database containing subscriber 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.
- 1.10 "ANI" (AUTOMATIC NUMBER IDENTIFICATION) is a feature that identifies and displays the number of a telephone that originates a call.
- 1.11 "ARS" (AUTOMATIC ROUTE SELECTION) 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.
- 1.12 "BILL AND KEEP" means a compensation arrangement whereby the Parties do not render bills to each other for the transport and termination of traffic specified in Article IV.
- 1.13 "BUSINESS DAY" shall mean each day Monday through Friday, except for holidays on which the U.S. mail is not delivered.
- 1.14 "BLV/BLI" (BUSY LINE VERIFY/BUSY LINE INTERRUPT) 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.
- 1.15 "CABS" means the Carrier Access Billing System which is defined 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-0011869, 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.
- 1.16 "CENTRAL OFFICE SWITCH" or "CENTRAL OFFICE" means a switching entity within the public switched network, including but not limited to end office switches and tandem office switches. Central office switches may be employed as combination End Office/Tandem Office Switches (Combination Class 5/Class 4).

- 1.17 "CLLI CODES" means Common Language Location Identifier Codes.
- 1.18 "COLLOCATION" means the right subject to Article IX of GST to place equipment in GTE's central offices or other GTE locations. This equipment may be placed via either a physical or virtual collocation arrangement. With physical collocation, GST obtains dedicated space to place and maintain its equipment. With virtual collocation, the GTE will install and maintain equipment that GST provides to GTE.
- 1.19 "CPN" (CALLING PARTY NUMBER) is a Common Channel Signaling parameter which refers to the number transmitted through the network identifying the calling party.
- 1.20 "CCS" (COMMON CHANNEL SIGNALING) means a method of digitally transmitting call set-up and network control data over a digital signaling network fully separate from the public switched telephone network that carries the actual call.
- 1.21 "CENTRANET" means a Telecommunications Service that uses central office switching equipment for call routing to handle direct dialing of calls, and to provide numerous private branch exchange-like features.
- 1.22 "CHARGE NUMBER" is a CCS parameter which refers to the number transmitted through the network identifying the billing number of the calling party.
- 1.23 "CLASS" (Bellcore Service Mark) -- Set of call-management service features that utilize the capability to forward a calling party's number between end offices as part of call setup. Features include Automatic Callback, Automatic Recall, Caller ID, Call Trace, and Distinctive Ringing.
- 1.24 "CLEC" means a Competitive Local Exchange Carrier.
- 1.25 "COMMISSION" means the Washington Utilities and Transportation Commission.
- 1.26 "CONDUIT" means a tube or protected pathway 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. "CONTROL OFFICE" is an exchange carrier center or office designated as its company's single point of contact for the provisioning and maintenance of its portion of local interconnection arrangements.
- 1.27 "CUSTOM CALLING FEATURES" -- Set of call-management service features available to residential and single-line business subscribers including call-waiting, call-forwarding and three-party calling.
- 1.28 "DS-1" is a digital signal rate of 1.544 Mbps.

- 1.29 "DS-3" is a digital signal rate of 44.736 Mbps.
- 1.30 "DIRECTORY ASSISTANCE DATABASE" refers to any subscriber record used by GTE in its provision of live or automated operator-assisted directory assistance including but not limited to 411, 555-1212, NPA-555-1212.
- 1.31 "DIRECTORY ASSISTANCE SERVICES" provides listings to callers. Directory Assistance Services may include the option to complete the call at the caller's direction.
- 1.32 "DIRECTORY LISTINGS" refers to subscriber information, including but not limited to name, address and phone numbers, that is published in any media, including but not limited to traditional white/yellow page directories, specialty directories, CD ROM, and other electronic formats.
- 1.33 "END OFFICE SWITCH" means a Class 5 switch which serves as a network entry point for subscriber and special services loops or trunks.
- 1.34 "EXCHANGE MESSAGE RECORD" or "EMR" means the standard used for exchange of telecommunications message information among ILECs for billable, non-billable, sample, settlement and study data. EMR format is contained in BR-010-200-010 CRIS Exchange Message Record, a Bellcore document that defines industry standards for exchange message records.
- 1.35 "EIS" (EXPANDED INTERCONNECTION SERVICE) is the collocation arrangement which GTE provides in its designated wire centers.
- 1.36 "EFFECTIVE DATE" is the date indicated in Article III on which the Agreement shall become effective.
- 1.37 "EMR" means the Exchange Message Record System used among ILECs 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.
- 1.38 "E911" (ENHANCED 911 SERVICE) means a telephone communication service which will automatically route a call dialed "911" to a designated public safety answering point ("PSAP") attendant and will provide to the attendant the calling party's telephone number and, when possible, the address from which the call is being placed and the emergency response agencies responsible for the location from which the call was dialed.
- 1.39 "ENHANCED WHITE PAGES" means optional features available for White Pages Directory listings (e.g., bold, all capitals, logos).

- 1.40 "ENHANCED YELLOW PAGES" means optional features available for Yellow Pages Directory listings (e.g., red type, bold, all capital, additional line of text, indented).
- 1.41 "FCC" means the Federal Communications Commission.
- 1.42 "FCC INTERCONNECTION ORDER" is the Federal Communications Commission's First Report and Order in CC Docket No. 96-98 released August 8, 1996.
- 1.43 "GTE'S CONDUIT(S)" OR "GTE CONDUIT(S)" shall have the meaning set forth in Article X.
- 1.44 "GTE'S POLE(S)" OR "GTE POLE(S)" shall have the meaning set forth in Article X.
- 1.45 "INP" (INTERIM NUMBER PORTABILITY) means the delivery of service provider number portability capabilities through the use of switch-based call routing as described in 47 C.F.R 52.7.
- 1.46 "IP" (INTERCONNECTION POINT) is a point of demarcation where the networks of GTE and GST interconnect for the exchange of traffic.
- 1.47 "IXC" (INTEREXCHANGE CARRIER) means a provider of interexchange telecommunications services.
- 1.48 "ISDN" or "Integrated Services Digital Network" means a digital switched network service providing end-to-end digital connectivity for the simultaneous transmission of voice and data.
- 1.49 "LOCAL EXCHANGE CARRIER" or "LEC" has the meaning set forth in the Act.
- 1.50 "LOCAL EXCHANGE ROUTING GUIDE" or "LERG" means the Bellcore reference customarily used to identify NPA-NXX routing and homing information, as well as network element and equipment designations.
- 1.51 "LIDB" (LINE INFORMATION DATA BASE(S)) A Service Control Point (SCP) database that provides for such functions as calling card validation for telephone line number cards issued by GTE and other entities and validation for collect and billed-to-third services.
- 1.52 "LOCAL INTERCONNECTION TRUNK GROUPS" shall mean one or two trunks used for the reciprocal exchange of combined or separate exchange services, Local Traffic of combined or separate exchange services, Local Traffic, intraLATA toll and optional EAS traffic, and local transit traffic to third party service providers.

- 1.53 "LOCAL TRAFFIC" means traffic that is originated by an end user of one Party and terminates to the end user of the other Party within GTE's then current local serving area, including mandatory Extended Area Service Arrangements.
- 1.54 "MSAG" (MASTER STREET ADDRESS GUIDE) is a database defining the geographic area of an E911 service. It includes an alphabetical list of the street names, high-low house number ranges, community names, and emergency service numbers provided by the counties or their agents to GTE.
- 1.55 "MCI" means MCI Telecommunications Corporation.
- 1.56 "GST" means GST.
- 1.57 "MECAB" refers to the Multiple Exchange Carrier Access Billing document prepared by the Billing Committee of 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"). The MECAB document, published by Bellcore as Special Report SR-BDS-000983, contains the recommended guidelines for the billing of an access service provided by two or more LECs, or by one LEC in two or more states within a single LATA.
- 1.58 "MECOD" refers to the Multiple Exchange Carriers Ordering and Design Guidelines for Access Services Industry Support Interface, a document developed by the Ordering/Provisioning Committee under the auspices of 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"). The MECOD document, published by Bellcore as Special Report SR-STS-002643, establish methods for processing orders for access service which is to be provided by two or more LECs. It is published by Bellcore as SRBDS 00983.
- 1.59 "MID-SPAN FIBER MEET" means an Interconnection architecture whereby two carriers' fiber transmission facilities meet at an IP.
- 1.60 "NANP" means the "North American Numbering Plan," the system of telephone numbering employed in the United States, Canada, and the Caribbean countries that employ NPA 809. It denotes the three digit Numbering Plan Area code and a seven digit telephone number made up of a three digit Central Office code plus a four digit station number.
- 1.61 "NETWORK ELEMENT" means a facility or equipment used in the provision of a telecommunications service including all features, functions and capabilities that are embedded in such facility or equipment.

- 1.62 "NENA" (NATIONAL EMERGENCY NUMBER ASSOCIATION) is an association with a mission to foster the technological advancement, availability and implementation of 911 nationwide.
- 1.63 "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 function of the NID is to establish the network demarcation point between a carrier and its subscriber. The NID features two independent chambers or divisions which separate the service provider's network from the subscriber's inside wiring. Each chamber or division contains the appropriate connection points or posts to which the service provider, and the subscriber each make their connections.
- 1.64 "NP" (NUMBER PORTABILITY) has the meaning set forth in the Act.
- 1.65 "NUMBERING PLAN AREA" or "NPA" is also sometimes referred to as an area code. This is the three digit indicator which is defined by the "A", "B", and "C" digits of each 10-digit telephone number within the NANP. Each NPA contains 800 possible NXX Codes. There are two general categories of NPA, "Geographic NPAs" and "Non-Geographic NPAs". A Geographic NPA is associated with a defined geographic area, and all telephone numbers bearing such NPA are associated with services provided within that geographic area. A Non-Geographic NPA, also known as a "Service Access Code" or "SAC Code" is typically associated with a specialized telecommunications service which may be provided across multiple geographic NPA areas. 500, 800, 900, 700, and 888 are examples of Non-Geographic NPAs.
- 1.66 "NXX", "NXX CODE", "CENTRAL OFFICE CODE" OR "CO CODE" is the three digit switch entity indicator which is defined by the "D", "E", and "F" digits of a 10-digit telephone number within the NANP.
- 1.67 "OBF" means the Ordering and Billing Forum, which functions under the auspices of the Carrier Liaison Committee ("CLC") of the Alliance for Telecommunications Industry Solutions ("ATIS").
- 1.68 "OPERATOR SYSTEMS" is the Network Element that provides Operator Services and Directory Assistance Services.
- 1.69 "OPERATOR SERVICES" provides (1) operator handling for call completion (e.g. collect calls); (2) operator or automated assistance for billing after the subscriber has dialed the called number (e.g. credit card calls); and (3) special services (e.g. BLV/ELI, Emergency Agency Call).
- 1.70 "P.01 TRANSMISSION GRADE OF SERVICE ("GOS")" means a trunk facility provisioning standard with the statistical probability of no more than one call in 100 blocked on initial attempt during the average busy hour.

- 1.71 "PLU" (PERCENT LOCAL USAGE) is a calculation which represents the ratio of the local minutes to the sum of local and intraLATA toll minutes between exchange carriers sent over Local Interconnection Trunks. Directory assistance, BLV/BLVI, 900, 976, transiting calls from other exchange carriers and switched access calls are not included in the calculation of PLU.
- 1.72 "POLE ATTACHMENT" means the connection of a facility to a utility pole. Some examples of facilities are mechanical hardware, grounding and transmission cable, and equipment boxes.
- 1.73 "POLES, DUCTS, CONDUITS AND ROW" shall have the meaning set forth in Article X.
- 1.74 "PROPRIETARY INFORMATION" shall have the same meaning as Confidential Information.
- 1.75 "PROVIDER" means GTE and "CUSTOMER" means GST with respect to those services performed by GTE pursuant to Article IV and any services for resale or unbundled network elements provided by GTE pursuant to Articles V and VI. GST shall be referred to as Provider and GTE shall be referred to as Customer with respect to those services performed by GST pursuant to Article IV.
- 1.76 "PSAP" (PUBLIC SAFETY ANSWERING POINT) is the public safety communications center where 911 calls placed by the public for a specific geographic area will be answered.
- 1.77 "RATE CENTER" means a specific Rate Center Point and corresponding Rate Center Area associated with one or more particular NPA-NXX Codes that have been assigned to GTE or GST for its provision of exchange services. The Rate Center Point is identified by a specific V&H coordinate. The Rate Center Area is the geographic area within which GTE or GST will provide exchange services bearing the particular NPA-NXX Codes assigned to a given Rate Center. The Rate Center Point must be located within the Rate Center Area. A Rate Center Point is used to classify end user traffic as toll or local and to calculate mileage for distance sensitive end user rates based on the originating and terminating Rate Center Points.
- 1.78 "REAL TIME" means the actual time in which an event takes place, with the reporting on or the recording of the event simultaneous with its occurrence.
- 1.79 "RECIPIENT" means that party to this Agreement (a) to which Confidential Information has been disclosed by the other party or (b) who has obtained Confidential Information in the course of providing services under this Agreement.

- 1.80 "RESELLER" is a category of Local Exchange service providers who obtain dial tone and associated telecommunications services from another provider through the purchase wholesale priced services for resale to their end user subscribers.
- 1.81 "ROW" (RIGHT OF WAY) shall have the meaning set forth in Article X.
- 1.82 "ROUTING POINT" means a location that GTE or GST has designated on its network as the homing (routing) point for traffic that terminates to Exchange Services provided by GTE or GST that bear a certain NPA-NXX designation. The Routing Point is used to calculate airline mileage for the distance-sensitive transport element charges of Switched Access Services. Pursuant to Bellcore Practice BR 795-100-100, the Routing Point may be an end office location, or a "LEC Consortium Point of Interconnection." The above referenced Bellcore document refers to the Routing Point as the Rating Point. The Rating Point/Routing Point need not be the same as the Rate Center Point, nor must it be located within the Rate Center Area, but must be in the same LATA as the NPA-NXX.
- 1.83 "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.
- 1.84 "SELECTIVE ROUTING" is a service which automatically routes an E911 call to the PSAP that has jurisdictional responsibility for the service address of the telephone that dialed 911, irrespective of telephone company exchange or wire center boundaries.
- 1.85 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 subscriber record data that provides information necessary to route 800 calls).
- 1.86 "STATE" means the State of Washington.
- 1.87 "SUBSCRIBER(S)" is an end user(s) who is not a telecommunications carrier(s).
- 1.88 "SUBSIDIARY" of a Party means a corporation or other legal entity that is majority owned by such Party.
- 1.89 "SWITCH" -- See Central Office Switch.
- 1.90 "SWITCHED ACCESS SERVICE" means the offering of facilities for the purpose of the origination or termination of traffic to or from Exchange Service customers in a

given area pursuant to a switched access tariff. Switched Access Services include: Feature Group A, Feature Group B, Feature Group D, 800/888 access and 900 access services. Switched access service does not include traffic exchanged between LECs for purpose of local exchange interconnection.

- 1.91 "TANDEM OFFICE SWITCHES" which are Class 4 switches which are used to connect and switch trunk circuits between and among end office switches and other tandems.
- 1.92 "TECHNICALLY FEASIBLE" shall be as described in the Act and the applicable FCC Rules and Regulations as in effect.
- 1.93 "TELECOMMUNICATIONS" means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.
- 1.94 "TELECOMMUNICATION SERVICES" means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.
- 1.95 "TSP" means Telecommunications Service Priority.
- 1.96 "WIRE CENTER" means a building or space within a building that serves as an aggregation point on a LEC's network, where transmission facilities and circuits are connected or switched. Wire center can also denote a building in which one or more central offices, used for the provision of Basic Exchange Services and access services, are located. However, for purposes of EIS service, Wire Center shall mean those points eligible for such connections as specified in the FCC Docket No. 91-141, and rules adopted pursuant thereto.

<u>Section</u>	<u>Page</u>
1. General Definitions	

ARTICLE III

GENERAL PROVISIONS

- 1. Provision of Service. This Agreement, which consists of Articles I through XIII and Appendices A through E, inclusive, sets forth the terms, conditions and prices under which GTE agrees to provide to GST (a) services for resale and (b) certain unbundled Network Elements, ancillary services and additional features and (c) other services or combinations of such local services, Network Elements, ancillary services and other services for GST's own use or for resale to others, and for purposes of offering voice, video, data or telecommunications services of any kind. This Agreement also sets forth the terms and conditions for the interconnection of GST's network to GTE's network and the reciprocal compensation for the transport and termination of telecommunications traffic. Unless otherwise provided in this Agreement, and except where not technically feasible in a given area, GTE will perform all of its obligations hereunder throughout its entire service area; provided, however, that GTE shall not be obligated to install facilities in areas not presently served except as otherwise mutually agreed.
- 2. <u>Combinations</u>. Subject to this Agreement, the Network Elements, ancillary services, local services, or other services provided pursuant to this Agreement may be connected to other Network Elements, ancillary services, local services, or other services provided by GTE or to any Network Elements, ancillary services, local services or other services provided by GST itself or by any other vendor. Subject to the requirements of this Agreement, GST may, at any time add, delete, or modify the Network Elements, ancillary services, local services, or other services purchased hereunder or relocate access to the foregoing. GTE will not discontinue any unbundled Network Element or ancillary service during the term of this Agreement without GST's consent, except:
 - 2.1 To the extent required by network changes or upgrades, in which event GTE will comply with the network disclosure requirements stated in the Act and FCC regulations thereunder; or
 - 2.2 If required or permitted by a final order of a court, the FCC or the Commission as a result of remand or appeal of the FCC Interconnection Order. In the event such a final order allows but does not require discontinuance, GTE may, on thirty (30) days written notice, require that such terms be renegotiated, and the Parties shall renegotiate in good faith such mutually acceptable new terms as may be required or appropriate to reflect the results of such action. In the event that such new terms are not renegotiated within ninety (90) days after such notice, or if the Parties are unable to agree either Party may submit the matter to the Dispute Resolution Process described in Section 40 of this Article.
- 3. Term of Agreement; Transition Support

3.1 The term of this Agreement shall be two (2) years commencing on the Effective Date. The Parties agree to commence negotiations, to be conducted pursuant to Section 252 of the Act, on a new Agreement no less than six (6) months before the end of the two (2) years after this Agreement becomes effective. If GST has sought arbitration pursuant to Section 252, this Agreement shall continue in force and in effect unless and until a new Agreement addressing all of the terms of this Agreement becomes effective between the Parties. GTE recognizes that the Network Elements, ancillary services, local services and other services provided hereunder are vital to GST and must be continued without interruption, and that GST may itself provide or retain another vendor to provide such comparable Network Elements, ancillary services, local services or other services. GTE and GST agree to cooperate in an orderly and efficient transition to GST or another vendor. GTE and GST further agree to cooperate in effecting the orderly transition to GST or another vendor such that the level and quality of the Network Elements, ancillary services, local services, and other services is not degraded and to exercise their best efforts to effect a orderly and efficient transition. GST shall be responsible for coordinating such transition.

4. Good Faith Performance

4.1 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. This provision shall not apply where consent or approval is expressly within a Party's sole discretion.

5. Breach

- 5.1 In the event of breach of any material provision of this Agreement by either Party, the non-breaching Party shall give the other Party written notice thereof, and:
 - 5.1.1 If such material breach is for non-payment of amounts due hereunder, the breaching Party shall cure such breach within thirty (30) days of receiving such notice. The non-breaching Party shall be entitled to pursue all available legal and equitable remedies for such breach. Amounts disputed in good faith and withheld or set off shall not be deemed "amounts due hereunder" for the purpose of this provision.
 - 5.1.2 If such material breach is for any failure to perform in accordance with this Agreement, which, adversely affects the non-breaching Party's subscribers, the non-breaching Party shall give notice of the breach and the breaching Party shall cure such breach to the non-breaching Party's reasonable satisfaction within ten (10) days or within a period of time equivalent to the applicable interval required

Art III - 2

by this Agreement, whichever is longer, and if breaching Party does not, the non-breaching Party shall be entitled to pursue all available legal and equitable remedies for such breach. Notice under this Subsection 5.1.2 may be given electronically or by facsimile and in such case shall be deemed received when sent.

- 5.1.3 If such material breach is for any other failure to perform in accordance with this Agreement, the breaching Party shall cure such breach to the non-breaching Party's reasonable satisfaction within forty-five (45) days, and if it does not, the non-breaching Party shall be entitled to pursue all available legal and equitable remedies for such breach.
- 5.2 In the event of any termination for material breach GTE agrees to provide for an uninterrupted transition of services to GST or another vendor designated by GST.
- 5.3 Termination of this Agreement, or any part hereof, for any cause shall not release either Party from any liability which at the time of termination had already accrued to the other Party or which thereafter accrues in any respect to any act or omission occurring prior to the termination or from an obligation which is expressly stated in this Agreement to survive termination.
- 5.4 Notwithstanding any termination hereof, the Parties shall continue to comply with their obligations under the Act to provide interconnection.
- 6. <u>Amendments and Modifications</u>. Any amendment, modification, waiver, or supplement to this Agreement must be in writing and signed by an authorized representative of each Party. The term "this Agreement" shall include future amendments, modifications, and supplements.
 - 6.1 Unless otherwise agreed, any additional services requested by either Party relating to the subject matter of this Agreement will be incorporated into this Agreement by amendment.
- 7. <u>Assignment</u>. Any assignment by either Party of any right, obligation, or duty, in whole or in part, or of any interest, without the written consent of the other Party shall be void, except that either Party may assign all of its rights, obligations, liabilities and duties under this Agreement, either in whole or in part, to any entity that is, or that was, immediately preceding such assignment, an Affiliate of that Party without consent, but with written notification. No assignment or delegation hereof shall relieve the assignor of its obligations under this Agreement.
- 8. <u>Authority</u>. Each person whose signature appears on this Agreement represents and warrants that he or she has authority to bind the Party on whose behalf he or she has executed this Agreement.
- 9. Billing and Payment

- 9.1 In consideration of the services provided by GTE under this Agreement, GST shall pay the charges set forth in Appendix C. The billing and payment procedures for charges incurred by GST hereunder are set forth in Article VIII.
- 10. <u>Binding Effect</u>. This Agreement shall be binding on and inure to the benefit of the Parties hereto and their respective successors and permitted assigns.

11. Compliance with Laws and Regulations

11.1 All terms, conditions and operations under this Agreement shall be performed in accordance with all applicable laws, regulations and judicial or regulatory decisions of all duly constituted governmental authorities with appropriate jurisdiction, and this Agreement shall be implemented consistent with the effective portions of the "FCC Interconnection Order." Each Party shall be responsible for obtaining and keeping in effect all FCC, Commission, franchise authority and other regulatory approvals that may be required in connection with the performance of its obligations under this Agreement.

12. Confidential Information

- 12.1 All confidential or proprietary information disclosed by either Party during the negotiations and the term of this Agreement shall be protected by the Parties in accordance with the terms of this Section 12. All Confidential Information (as defined below) which is disclosed by one Party ("Disclosing Party") to the other ("Recipient") in connection with this Agreement, or acquired in the course of performance of this Agreement, shall be deemed confidential and proprietary to the Disclosing Party and subject to this Agreement. As used herein, Confidential Information shall mean: (i) all information delivered in written form and marked "confidential" or "proprietary" or bearing mark of similar import, (ii) Customer Proprietary Network Information ("CPNI") as that term is defined by the Act and the rules and regulations of the FCC and (iii) information that would reasonably be expected to cause competitive harm if disclosed including, without limitation, orders for services and usage information in any form.
 - 12.1.1 For a period of ten (10) years from receipt of Confidential Information, Recipient shall (i) use it only for the purpose of performing under this Agreement, (ii) hold it in confidence and disclose it only to employees who have a need to know it in order to perform under this Agreement, and (iii) safeguard it from unauthorized use or Disclosure using no less than the degree of care with which Recipient safeguards its own Confidential Information. Recipient may disclose Confidential Information to any third party agent or consultant who has need to know in order for Recipient to perform obligations pursuant to this Agreement, provided that such third party agent or consultant must have executed a written agreement comparable in scope to the terms of this Section 12.

- 12.1.2 Recipient shall have no obligation to safeguard Confidential Information (i) which was in the Recipient's possession free of restriction prior to its receipt from Disclosing Party, (ii) which becomes publicly known or available through no breach of this Agreement by Recipient, (iii) which is rightfully acquired by Recipient free of restrictions on its Disclosure, or (iv) which is independently developed by personnel of Recipient to whom the Disclosing Party's Confidential Information had not been previously disclosed.
- 12.1.3 Recipient may disclose Confidential Information (i) if required by law, a court, or governmental agency, or (ii) to any arbitrator, state or federal regulatory body, the Department of Justice or any court, in the conduct of any arbitration, approval or appeal of this Agreement, provided that Disclosing Party has been notified of the requirement promptly after Recipient becomes aware of the requirement, and provided that Recipient undertakes all lawful measures to avoid disclosing such information until Disclosing Party has had reasonable time to obtain a protective order. Recipient agrees to comply with any protective order that covers the Confidential Information to be disclosed.
- 12.1.4 Each Party agrees that Disclosing Party would be irreparably injured by a breach of this Section 12 by Recipient or its representatives and that Disclosing Party shall be entitled to seek equitable relief, including injunctive relief and specific performance, in the event of any breach of this Section 12. Such remedies shall not be exclusive, but shall be in addition to all other remedies available at law or in equity.
- 12.2 CPNI related to GST's subscribers obtained by virtue of Local Interconnection or any other service provided under this Agreement shall be GST's proprietary information and may not be used by GTE for any purpose except performance of its obligations under this Agreement, and in connection with such performance, shall be disclosed only to employees with a need to know, unless the GST subscriber expressly directs GST to disclose such information to GTE pursuant to the requirements of Section 222(c)(2) of the Act. If GTE seeks and obtains written approval to use or disclose such CPNI from GST's subscribers, such approval shall be obtained only in compliance with Section 222(c)(2) and, in the event such authorization is obtained, GTE may use or disclose only such information as GST provides pursuant to such authorization and may not use information that GTE has otherwise obtained, directly or indirectly, in connection with its performance under this Agreement. CPNI related to GTE's subscribers obtained by virtue of Local Interconnection shall be GTE's proprietary information and may not be used by GST for any purpose except performance of its obligations under this Agreement, and in connection with such performance shall be disclosed only to employees with a need to know, unless the GTE subscriber expressly directs GTE to disclose such information to GST pursuant to the requirements of Section 222(c)(2) of the Act. If GST seeks and obtains written approval to use or disclose such CPNI from GTE's subscribers, such approval shall be obtained only in compliance with Section 222(c)(2) of the Act and, in the

event such authorization is obtained, GST may use or disclose only such information as GTE provides pursuant to such authorization and may not use information that GST has otherwise obtained, directly or indirectly, in connection with its performance under this Agreement.

12.3 Except as otherwise expressly provided in this Section 12, nothing herein shall be construed as limiting the rights of either Party with respect to its subscriber information under any applicable law, including without limitation Section 222 of the Act.

13. Revenue Protection

- 13.1 The Parties shall work cooperatively with each other to utilize present and future fraud prevention or revenue protection features, including prevention, detection, or control functionality embedded within the network. 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 on a per line basis, in accordance with applicable laws, regulations and tariffs. GTE will provide call blocking 700 and 800/888 numbers when technically feasible and when made available to GTE end users, in accordance with applicable laws, regulations and tariffs. GTE shall provide access to fraud prevention, detection and control functionality within pertinent Operations Support Systems ("OSS"), provided, however, that such access will only be provided to those systems which GTE provides to itself.
 - 13.1.1 If GST has uncollectible or unbillable revenue resulting from, but not confined to, provisioning, maintenance, or signal network routing errors which are the responsibility of GTE, GTE shall issue GST a credit for the monthly recurring charge or other charges for the underlying local service or Network Element on a pro-rata basis for the period of time during which the error occurred.
 - 13.1.2 If GST has uncollectible or unbillable revenue resulting from accidental or malicious alteration of software underlying Network Elements or their subtending operational support systems by unauthorized third parties for which GTE has administrative control of access to said Network Element or operational support system software, GTE shall issue GST a credit for the monthly recurring charge or other charges for the underlying local service or Network Element on a pro-rata basis for the period of time during which the unauthorized alteration occurred.
 - 13.1.3 If GST has uncollectible or unbillable revenues resulting from the unauthorized physical attachment to loop facilities (under GTE's responsibility or control) from the Main Distribution Frame up to and including the Network Interface Device, including clip-on fraud, GTE shall issue GST a credit for the monthly recurring charge or other charges for the underlying local service or

Art III - 6

Network Element on a pro-rata basis for the period of time during which the unauthorized attachment occurred.

13.1.4 GTE shall provide soft dial tone where available to allow only the completion of calls to final termination points required by law.

14. Bona Fide Request Process

- 14.1 GST may seek further unbundling of Network Elements or the introduction of new unbundled Network Elements or arrangements from time to time by submitting a request in writing ("Bona Fide Request" or "BFR") to GTE, providing information needed to enable GTE to prepare a preliminary analysis. BFRs may also be used as specified elsewhere in this Agreement in accordance with the procedures set forth in this Section 14.
- 14.2 GTE shall acknowledge receipt of the BFR within three (3) business days.
- 14.3 Unless otherwise agreed to by the Parties, or as provided below, within forty-five (45) days of its receipt of a BFR, GTE shall provide to GST a preliminary analysis of the BFR, including a price estimate and other information needed for GST to authorize development.
 - 14.3.1 If GTE determines that it cannot offer access to the Network Element, it shall provide a detailed explanation of why access to the Network Element or provision of other requested arrangement or service is not technically feasible, and shall use its best efforts to communicate such determination as soon as possible, and in no event later than forty-five (45) days after receiving the BFR.
 - 14.3.2 If GTE reasonably believes that a technical or operational test or trial is necessary to determine technical feasibility, it shall promptly propose such a test or trial to GST, and shall proceed with such test or trial and the Parties shall mutually agree upon a revised time frame for completion. Upon completion of the test or trial, GTE shall promptly prepare and provide either the preliminary analysis, including price estimate, or a detailed explanation of why access to the Network Element or provision of other requested arrangement or service is not technically feasible.
- 14.4 If GST accepts the preliminary analysis by delivering a written authorization to GTE, GTE shall promptly, but not more than thirty (30) days after receiving authorization, unless the Parties agree to an extension, provide a final quote.
- 14.5 To the extent possible, GTE will utilize information from previously developed BFRs to address similar BFRs in order to shorten its response times. In the event GTE has determined that unbundling of such Network Element or provision of other requested

Art III - 7

arrangement or service is technically feasible, subsequent orders for the same type of Network Element or other requested arrangement or service, falling within the scope of such determination, shall not be subject to the BFR process.

- 14.6 The Network Element or other requested arrangement or service shall be priced in accordance with Section 252(d)(1) of the Act and any applicable FCC or Commission rules, regulations, or orders.
- 14.7 Notwithstanding the provisions of this Section 14, the Parties retain all rights under Sections 251 and 252 of the Act.

15. Branding

- 15.1 Branding of Operator Services and Directory Services shall be as provided in accordance with Article V, Section 3.5.1.
- 15.2 GST shall provide the exclusive interface to GST subscribers, except as GST shall otherwise specify.
- 15.3 When a GTE technical representative goes to a customer premise on behalf of GST, in the event the representative has contact with the customer, the representative will indicate to the customer that he or she works for GTE, but is at the customer premises on behalf of GST regarding GST service. If the customer is not at the premise at the time that the GTE technical representative is at the premise, GTE agrees to deliver generic material or documents to the customer, and the technical representative will write GST's name on the document or material left for the customer.
- 15.4 GTE personnel acting on behalf of GST will not discuss, provide, or leave information or material relating to GTE's services and products.
- 15.5 GTE shall provide, for GST's review and comment, the methods and procedures, training and approaches to be used by GTE to assure that GTE meets the branding requirements of this Agreement.
- 15.6 This Section 15 shall confer on GTE no rights to the service marks, trademarks and trade names owned by or used in connection with services by GST or its Affiliates, except as expressly permitted by GST.

16. Force Majeure

16.1 Neither Party shall be held liable for any delay or failure in performance of any part of this Agreement from any cause beyond its control and without its fault or negligence, such as acts of God, acts of civil or military authority, embargoes, epidemics, war, terrorist acts, riots, insurrections, fires, explosions, earthquakes, nuclear accidents, floods,

power blackouts, labor actions, including strikes, slowdowns, picketing or boycotts, or unusually severe weather. No delay or other failure to perform shall be excused pursuant to this Section 16 unless delay or failure and consequences thereof are beyond the control and without the fault or negligence of the Party claiming excusable delay or other failure to perform. In the event of any such excused delay in the performance of a Party's obligation(s) under this Agreement, the due date for the performance of the original obligation(s) shall be extended by a term equal to the time lost by reason of the delay. In the event of such delay, the delaying Party shall perform its obligations at a performance level no less than that which it uses for its own operations. In the event of such performance delay or failure by GTE, GTE agrees to resume performance in a nondiscriminatory manner and not favor its own provision of Telecommunications Services above that of GST.

- 17. Governing Law. This Agreement shall be governed by and construed in accordance with the Act and the FCC's Rules and Regulations, except insofar as state law may control any aspect of this Agreement, in which case the domestic laws of the State, without regard to its conflicts of laws principles, shall govern.
- 18. <u>Headings Not Controlling</u>. The headings and numbering of Sections, Subsections, Articles, and Appendices in this Agreement are inserted for convenience and shall not be construed to define or limit any of the terms herein or affect the meaning or interpretation of this Agreement.
- 19. Relationship of Parties. Nothing contained herein shall constitute the Parties as joint venturers, partners, employees or agents of one another, and neither Party shall have the right or power to bind or obligate the other. The persons provided by each Party shall be solely that Party's employees and shall be under the sole and exclusive direction and control of that Party. They shall not be considered employees of the other Party for any purpose. Each Party shall remain an independent contractor with respect to the other and shall be responsible for compliance with all laws, rules and regulations involving, but not limited to, employment of labor, hours of labor, health and safety, working conditions and payment of wages. Each Party shall also be responsible for payment of taxes, including federal, state and municipal taxes, chargeable or assessed with respect to its employees, such as Social Security, unemployment, workers' compensation, disability insurance, and federal and state withholding.

20. Indemnification

20.1 [Section 20.1 is Reserved]

20.2 Indemnification Procedures. Whenever a Claim shall arise for indemnification under this Section 20, the relevant Indemnified Party, 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 Indemnified Party of acceptance of the defense of such Claim and the identity of counsel selected by the Indemnifying Party. Until such time as Indemnifying Party provides such written notice of acceptance of the defense of such Claim, the Indemnified Party shall defend such Claim, at the expense of the Indemnifying Party, subject to any right of the Indemnifying Party to seek reimbursement for the costs of such defense in the event that it is determined that Indemnifying Party had no obligation to indemnify the Indemnified Party for such Claim. The Indemnifying Party shall have exclusive right to control and conduct the defense and settlement of any such Claims, subject to consultation with the Indemnified Party. The Indemnifying Party shall not be liable for any settlement by the Indemnified Party unless such Indemnifying Party has approved such settlement in advance and agrees to be bound by the agreement incorporating such settlement. At any time, an Indemnified Party shall have the right to refuse a compromise or settlement and, at such refusing Party's 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 Indemnified Party 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 Indemnified Party 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 Indemnified Party and also shall be entitled to employ separate counsel for such defense at such Indemnified Party's expense. If the Indemnifying Party does not accept the defense of any indemnified Claim as provided above, the relevant Indemnified Party 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, subject to the restrictions and limitations set for in Section 12 hereof.

- 21. <u>Continuing Obligations</u>. Except as otherwise provided herein, each Party shall perform its continuing obligations hereunder at a performance level no less than that which it uses for its own operations, or those of its Affiliates, but in no event shall a Party use less than reasonable care in the performance of its duties hereunder. The following Continuing Obligations shall be subject to any specific limitations on GTE's obligations contained in the Award and/or set forth elsewhere in this Agreement.
 - 21.1 Interconnection will be provided by GTE on a non-discriminatory basis, at any technically feasible point within its network at GST's request, and such interconnection will contain all the same features, functions and capabilities, and be at least equal in quality to that level provided by GTE to itself or its Affiliates. GTE shall have the burden of proving that a requested Interconnection Point ("IP") is not technically feasible. To the extent GTE proves infeasibility, GTE shall be required to provide to GST an alternative IP

which will not impair GST's ability to provide its Telecommunications Services. Such alternative IP shall be as nearly as possible technically equivalent to the requested IP.

- 21.2 GTE will provide to GST on a nondiscriminatory basis unbundled Network Elements, including but not limited to local loop, local switching, tandem switching/transit switching, transport, data switching, operator service, directory assistance, network interface device, loop concentrator/multiplexer, loop feeder, and loop distribution at any technically feasible points requested by GST, and all operations support systems used and useful in the preordering, ordering, provisioning, design, engineering, maintenance, repair, tracking, management, billing and any other function or functionality associated directly or indirectly with unbundled Network Elements and ancillary services. These services, or their functional components, will contain all the same features, functions and capabilities and be provided at a level of quality at least equal to that level which it provides to itself or its Affiliates. GTE shall have the burden of proving that access requested by GST is not technically feasible.
- 21.3 GTE will provide to GST nondiscriminatory access to poles, ducts, conduits, and Rights-of-Way as set forth in Article X.
- 21.4 GTE will provide nondiscriminatory access to telephone numbers.
- 21.5 GTE will provide to GST interim number portability with the same features, functions and capabilities that GTE provides to itself or its Affiliates, and with as little impairment of functioning, quality, reliability, and convenience as possible, and that it will provide such service as required by the FCC in Telephone Number Portability, CC Docket No. 95-116, First Report and Order, released July 2, 1996.
- 21.6 GTE will provide to GST, in a competitively neutral fashion, dialing parity for local exchange service and interexchange service in accordance with the applicable rules, regulations, and orders of the Commission and the FCC.
- 21.7 With respect to Local Resale, order entry, provisioning, installation, trouble resolution, maintenance, subscriber care, billing, and service quality will be provided at least as expeditiously as GTE provides for itself and GTE will provide such services to GST in a competitively neutral fashion and at a level of quality which allows GST in turn to provide Local Resale at a level of quality equal to the level of quality GTE provides for itself.
- 21.8 GTE will provide on a nondiscriminatory basis, and in accordance with tariffs approved by the Commission, space on its premises for physical or virtual collocation, as GST may specify, for equipment necessary for GST's interconnection and access to unbundled Network Elements.
- 22. [Section 22 is Reserved]

23. Intellectual Property

- 23.1 [Section 23.1 is Reserved]
- 23.2 Any intellectual property which originated from or is developed by a Party shall remain in the exclusive ownership of that Party. Except for a limited license to use patents or copyrights to the extent necessary for the Parties to use any facilities or equipment (including software) or to receive any service solely as provided under this Agreement, no license in patent, copyright, trademark or trade secret, or other proprietary or intellectual property right now or hereafter owned, controlled or licensable by a Party, is granted to the other Party or shall be implied or arise by estoppel.
- 23.3 Unless otherwise mutually agreed upon, neither Party shall publish or use the other Party's logo, trademark, service mark, name, language, pictures, or symbols or words from which the other Party's name may reasonably be inferred or implied in any product, service, advertisement, promotion, or any other publicity matter.

24. Remedies

- 24.1 The obligations of GTE and the services offered under this Agreement are unique. Accordingly, in addition to any other available rights or remedies, GST may have a claim in equity for specific performance.
- 24.2 [Section 24.2 is Reserved]
- 24.3 All rights of termination, cancellation or other remedies prescribed in this Agreement, or otherwise available, are cumulative and are not intended to be exclusive of other remedies to which the injured Party may be entitled at law or equity in case of any breach or threatened breach by the other Party of any provision of this Agreement. Use of one or more remedies shall not bar use of any other remedy for the purpose of enforcing the provisions of this Agreement.
- 25. <u>Third Party Beneficiaries</u>. The provisions of this Agreement are for the benefit of the Parties hereto and not for any other person. This Agreement shall not provide any person not a party hereto with any remedy, claim, liability, reimbursement, claim of action, or other right in excess of those existing without reference hereto.
- 26. Notices. Except as otherwise provided herein, any notice to a Party required or permitted under this Agreement shall be in writing and shall be deemed to have been received on the date of service if served personally, on the date receipt is acknowledged in writing by the recipient if delivered by regular U.S. mail, or on the date stated on the receipt if delivered by certified or registered mail or by a courier service that obtains a written receipt. Notice may also be provided by facsimile, which shall be effective on the next Business Day following the date of transmission. Any notice shall be delivered using one of the alternatives mentioned in this Section and shall be

Art III - 12

directed to the applicable address indicated below or such address as the Party to be notified has designated by giving notice in compliance with this Section:

If to GTE: GTE Northwest Incorporated

Attention: Lida Tong

State Director - External Affairs

Mailcode WA0101RA

1800 41st Street

Everett, Washington 98201 Facsimile number: 206-261-5262

Copy to: Thomas R. Parker

Assistant Vice President--Associate General Counsel

HQE03J43

600 Hidden Ridge Drive Irving, Texas 75038

Facsimile number: 972-718-1250

If to GST: Manager of Contracts

GST Telecom, Inc.

4317 Northeast Thurston Way

Vancouver, WA 98062

Copy to: Director of Connecting Carrier Relations

GST Telecom, Inc. Exchange and Wireless

4317 Northeast Thurston Way

Vancouver, WA 98062

26.1 If personal delivery is selected to give notice, a receipt of such delivery shall be obtained. The address to which notices or communications may be given to either Party may be changed by written notice given by such Party to the other pursuant to this Section 26.

27. [Section 27 is Reserved]

28. <u>Impairment of Service</u>. The Parties shall use reasonable efforts to ensure that the characteristics and methods of operation of any circuits, facilities or equipment of either Party connected with the services, facilities or equipment of the other Party pursuant to this Agreement do not interfere with or impair service over any facilities of the other Party, its affiliated companies, or its connecting and concurring carriers involved in its services, cause damage to their plant, violate any applicable law or regulation regarding the invasion of privacy of any communications carried over the Party's facilities or create hazards to the employees of either Party or to the public (each hereinafter referred to as an "Impairment of Service").

- 29. <u>Publicity</u>. Neither Party shall produce, publish, or distribute any press release or other publicity referring to the other Party or its Affiliates, or to this Agreement, without the prior written approval of the other Party. Each Party shall obtain the other Party's prior approval before discussing this Agreement in any press or media interviews. In no event shall either Party mischaracterize the contents of this Agreement in any public statement or in any representation to a governmental entity or member thereof.
- 30. <u>Regulatory Approvals</u>. This Agreement, and any amendment or modification hereof, will be submitted to the Commission for approval in accordance with Section 252 of the Act. In the event any governmental authority or agency rejects any provision hereof, the Parties shall negotiate promptly and in good faith such revisions as may reasonably be required to achieve approval.
- 31. <u>Rules of Construction</u>. No rule of construction requiring interpretation against the drafting Party hereof shall apply in the interpretation of this Agreement. The terms "will" and "shall" are used interchangeably throughout this Agreement, and no difference in meaning is intended thereby.
- 32. <u>Section References</u>. Except as otherwise specified, references within an Article or Appendix of this Agreement to a Section refer to Sections within that same Article or Appendix.
- 33. <u>Severability</u>. Subject to Section 30 Regulatory Approvals, if any part of this Agreement is held to be invalid for any reason, such invalidity will affect only the portion of this Agreement which is invalid. In all other respects this Agreement will stand as if such invalid provision had not been a part thereof, and the remainder of the Agreement shall remain in full force and effect.

34. Waiver

- 34.1 No waiver of any provisions of this Agreement and no consent to any default under this Agreement shall be effective unless the same shall be in writing and properly executed by or on behalf of the Party against whom such waiver or consent is claimed.
- 34.2 No course of dealing or failure of any Party to strictly enforce any term, right, or condition of this Agreement in any instance shall be construed as a general waiver or relinquishment of such term, right or condition.
- 34.3 Waiver by either Party of any default by the other Party shall not be deemed a waiver of any other default.
- 34.4 GST does not waive any rights to which it may be entitled pursuant to the Act.
- 35. <u>Subsequent Law</u>. In the event the FCC or the Commission promulgates rules or regulations, or issues orders, or a court with appropriate jurisdiction issues orders, which make unlawful any provision of this Agreement, the Parties shall negotiate promptly and in good faith in order to

amend the Agreement to substitute contract provisions which are consistent with such rules, regulations or orders. In the event the Parties cannot agree on an amendment within thirty (30) days from the date any such rules, regulations or orders become effective, then the Parties shall resolve their dispute under the applicable procedures set forth in Section 40 (Dispute Resolution Procedures) hereof.

- 36. <u>Subcontractors</u>. If any obligation is performed by a subcontractor or Affiliate, GTE shall remain fully responsible for the performance of this Agreement in accordance with its terms.
- 37. <u>Taxes</u>. Any Federal, state or local excise, sales, or use taxes (excluding any taxes levied on income) resulting from the performance of this Agreement shall be borne by the Party upon which the obligation for payment is imposed under applicable law, even if the obligation to collect and remit such taxes is placed upon the other Party.
 - 37.1 The collecting Party shall charge and collect from the obligated Party, and the obligated Party agrees to pay to the collecting Party, all applicable taxes, except to the extent that the obligated Party notifies the collecting Party and provides to the collecting Party appropriate documentation that qualifies the obligated Party for a full or partial exemption.
 - 37.2 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.
 - 37.3 If the providing Party does not collect a Tax because the purchasing Party asserts that it is not responsible for the tax, or is otherwise excepted from the obligation which is later determined by formal action to be wrong then, as between the providing Party and the purchasing Party, the purchasing Party will be liable for such uncollected Tax and any interest due and/or penalty assessed on the uncollected Tax by applicable taxing authority or governmental entity.
- 38. [Section 38 is Reserved]
- 39. Responsibility for Environmental Contamination
 - 39.1 GST shall in no event be liable to GTE for any costs whatsoever resulting from the presence or release of any environmental hazard that GST did not introduce to the affected work location. GTE shall, at GST's request, indemnify, defend, and hold harmless GST, 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 from (i) any environmental hazard that GTE, its contractors or agents introduce to the work locations or (ii) the presence or release of any environmental hazard for which GTE is responsible under Applicable Law.

- 39.2 GTE shall in no event be liable to GST for any costs whatsoever resulting from the presence or release of any environmental hazard that GTE did not introduce to the affected work location. GST shall, at GTE's request, indemnify, defend, and hold harmless GTE, each of its officers, directors and employees from and against any losses, damages, claims, demands, suits, liabilities, fines, penalties and expenses (including reasonable attorneys' fees) that arise out of or result from (i) any environmental hazard that GST, its contractors or agents introduce to the work locations or (ii) the presence of release of any environmental hazard for which GST is responsible under applicable law.
- 39.3 In the event any suspect materials within GTE -owned, operated or leased facilities are identified to be asbestos-containing, GST will ensure that to the extent any activities which it undertakes in the facility disturb such suspect materials, such GST activities will be in accordance with applicable local, state and federal environmental and health and safety statutes and regulations. Except for abatement activities undertaken by GST or equipment placement activities that result in the generation of asbestos containing material, GST shall not have any responsibility for managing, nor be the owner of, not have any liability for, or in connection with, any asbestos containing material. GTE agrees to immediately notify GST if GTE undertakes any asbestos control or asbestos abatement activities that potentially could affect GST equipment or operations, including, but not limited to, contamination of equipment.
- 39.4 The Parties will designate representatives to meet and, no later than sixty (60) days after the Effective Date, agree upon requirements relating to environmental purchases and procedures for the services provided under this Agreement and in connection with collocation of GST equipment and use of poles, ducts, conduits and right of way.

40. <u>Dispute Resolution</u>

- 40.1 Alternative to Litigation. Except as provided under Section 252 of the Act with respect to the approval of this Agreement by the Commission, the Parties desire to resolve disputes arising out of this Agreement without litigation. Accordingly, except for action seeking a temporary restraining order or an injunction related to the purposes of this Agreement, or suit to compel compliance with this dispute resolution process, the Parties agree to use the following alternative dispute resolution procedure as their sole remedy with respect to any controversy or claim arising out of or relating to this Agreement or its breach.
- 40.2 Negotiations. At the written request of a Party, each Party will appoint a knowledgeable, responsible representative to meet and negotiate in good faith to resolve

any dispute arising under this Agreement. The Parties intend that these negotiations be conducted by non-lawyer, business representatives. The location, format, frequency, duration, and conclusion of these discussions shall be left to the discretion of the representatives. Upon agreement, the representatives may utilize other alternative dispute resolution procedures such as mediation to assist in the negotiations. Discussions and correspondence among the representatives for purposes of these negotiations shall be treated as confidential information developed for purposes of settlement, exempt from discovery and production, which shall not be admissible in the arbitration described below or in any lawsuit without the concurrence of all Parties. Documents identified in or provided with such communications, which are not prepared for purposes of the negotiations, are not so exempted and may, if otherwise admissible, be admitted in evidence in the arbitration or lawsuit.

- 40.3 Arbitration. If the negotiations do not resolve the dispute within sixty (60) days of the initial written request, the dispute shall be submitted to binding arbitration by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. A Party may demand such arbitration in accordance with the procedures set out in those rules. Discovery shall be controlled by the arbitrator and shall be permitted to the extent set out in this section. Each Party may submit in writing to a Party, and that Party shall so respond to, a maximum of any combination of thirtyfive (35) (none of which may have subparts) of the following: interrogatories, demands to produce documents, or requests for admission. Each Party is also entitled to take the oral deposition of one individual of another Party. Additional discovery may be permitted upon mutual agreement of the Parties. The arbitration hearing shall be commenced within sixty (60) days of the demand for arbitration. The arbitration shall be held in Seattle, Washington. The arbitrator shall control the scheduling so as to process the matter expeditiously. The Parties may submit written briefs. The arbitrator shall rule on the dispute by issuing a written opinion within thirty (30) days after the close of hearings. The times specified in this section may be extended upon mutual agreement of the Parties or by the arbitrator upon a showing of good cause. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction.
- 40.4 Costs. Each Party shall bear its own costs of these procedures. A Party seeking discovery shall reimburse the responding Party the costs of production of documents (including search time and reproduction costs). The Parties shall equally split the fees of the arbitration and the arbitrator.
- 41. Reference Documents. Except as otherwise provided in this Agreement, whenever any provision of this Agreement refers to a technical reference or publication, GST or GTE practice, any publication of a telecommunications industry administrative or technical standard, 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 was in effect at the time of execution of the Agreement, and will include the most recent version or edition (including any amendments, supplements addenda,

or successors) of each document incorporated by reference into such technical reference or publication, practice or publication of industry standards.

- 42. <u>Multiple Counterparts</u>. This Agreement may be executed multiple counterparts, each of which shall be deemed an original, but all of which shall together constitute but one and the same document.
- 43. No Offer. Submission of this Agreement for examination or signature does not constitute an offer by GTE for the provision of the products or services described herein. This Agreement will be effective only upon execution and delivery by both Parties and approval by the Commission in accordance with Section 252 of the Act.
- 44. Entire Agreement. This Agreement constitutes the entire agreement of the Parties pertaining to the subject matter of this Agreement and supersedes all prior agreements, negotiations, proposals, and representations, whether written or oral, and all contemporaneous oral agreements, negotiations, proposals, and representations concerning such subject matter. No representations, understandings, agreements, or warranties, expressed or implied, have been made or relied upon in the making of this Agreement other than those specifically set forth herein.
- 45. <u>Survival</u>. 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, Limitation of 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.

1. Pro	ovision of Service	. 1
2. Co	mbinations	. 1
3. Tei	rm of Agreement; Transition Support	. 1
	od Faith Performance	
5. Bre	each	. 2
6. An	nendments and Modifications	.3
7. Ass	signment	. 3
8. Au	thority	. 3
9. Bill	ling and Payment	. 3
10. B	inding Effect	. 4
11. C	ompliance with Laws and Regulations	. 4
12. C	onfidential Information	. 4
13. R	evenue Protection	.6
14. B	ona Fide Request Process	. 7
15. B	randing	. 8
16. Fo	orce Majeure	. 8
17. G	overning Law	.9
18. H	eadings Not Controlling	.9
19. R	elationship of Parties	.9
20. In	ndemnification	.9
21. C	ontinuing Obligations	10
22. [S	Section 22 is Reserved]	11
23. In	itellectual Property	12
24. R	emedies	12
25. Tl	hird Party Beneficiaries	12
	otices	
27. [S	Section 27 is Reserved]	13
28. In	npairment of Service	13
29. Pi	ublicity	14
30. R	egulatory Approvals	14
31. R	ules of Construction	14
32. Se	ection References	14
33. Se	everability1	14
	Vaiver	
	ubsequent Law	
36. Sı	ubcontractors1	15
37. Ta		
	Section 38 is Reserved]	
	esponsibility for Environmental Contamination	
	ispute Resolution	
	eference Documents	
	Iultiple Counterparts	
43. N	o Offer	18

44.	Entire Agreement	. 18
45 .	Survival	. 18

ARTICLE IV

INTERCONNECTION AND TRANSPORT AND TERMINATION OF TRAFFIC

- 1. Interconnection Services Covered by This Article
 - 1.1 Types of Services. This Article governs the provision of internetwork facilities (i.e., physical interconnection services and facilities), meet point billing by GTE to GST or by GST to GTE and the transport and termination of traffic between GTE and GST. The services and facilities described in this Article shall be referred to in this Article IV as the "Interconnection Services".
 - 1.2 Service Locations for Interconnection Services and Facilities. Appendix A, Service Matrix, attached to this Agreement and made a part hereof, sets forth the Services and each location in the State where a Service shall be provided (the "Service Locations") and the Point of Interconnection ("IP") for such Services. The Parties shall update Appendix A whenever a new IP is added to this Agreement in accordance with Section 1.3.
 - 1.3 Additional Services or Service Locations. If, during the term of this Agreement, GTE desires to provide to GST and GST desires to purchase from GTE, or GST desires to provide to GTE and GTE desires to purchase from GST, additional services in the State, or existing Services in new locations in the State or if GST requests additional IPs, the Parties shall execute an amendment to this Agreement substantially in the form of Appendix B attached to this Agreement and made a part hereof, incorporating the additional locations and/or any additional terms necessary for the additional services or additional IPs. If GST has requested an additional IP, the Parties may commence provisioning of the IP prior to the execution of such amendment to this Agreement; provided, however, that such amendment to this Agreement shall be executed no later than ninety (90) days after the commencement of such provisioning. Upon the effective date of the amendment, and continuing through the remaining term of this Agreement, the new services shall be deemed part of the Services provided pursuant to this Article and/or the new locations shall be deemed part of the Service Locations.
 - 1.4 Location of additional IPs. Upon GST's request for additional IP, GTE will interconnect with GST at any technically feasible IP of GST's choosing using the same technical configuration or using other arrangements including but not limited to mid-span fiber meets, entrance facilities, equipment rooms, and physical or virtual collocation. Where technically feasible, GST may request interconnection at a telephone closet. If a third party owner has the right to deny access to a telephone closet, GTE shall cooperate with GST in obtaining the third party owner's permission to place facilities in a telephone closet.

1.5 Use of IPs. When an GST subscriber places a call to GTE's subscriber, GST will hand off that call to GTE at the IP. Conversely, when GTE hands over Local Traffic to GST for GST to transport and terminate, GTE must use the established IP.

2. Billing and Rates

- 2.1 Rates and Charges. Rates and charges for Local Interconnection Services as set forth in Appendix C apply unless Bill and Keep applies as described in this Article.
- 2.2 Billing. Provider shall render to Customer a CABS bill for interconnection services on a current basis. Charges for physical facilities and other nonusage sensitive charges shall be billed in advance, except for charges and credits associated with the initial or final bills. Usage sensitive charges, such as charges for termination of traffic, shall be billed in arrears. Charges for traffic that has been, for whatever reason, routed over a jurisdictionally inappropriate trunk group (e.g., Local Traffic carried over trunks used for Switched Access Traffic) shall be handled as a post-billing adjustment to bills rendered. Additional matters relating to billing are included in Article VIII of this Agreement.

3. Transport and Termination of Traffic

- 3.1 Types of Traffic. The Parties shall reciprocally terminate Local Traffic originating on each other's networks utilizing either direct or indirect network interconnections as provided in this Article IV. To this end, the Parties agree that there will be interoperability between their networks.
- 3.2 Audits. GST and GTE agree to exchange such reports and/or data as provided in Section 3.6 to facilitate the proper billing of traffic. Such audit must be performed by a mutually agreed independent auditor paid for by the Party requesting the audit and may include review of the data described in Section 3.6 below. Such audits shall be requested within six (6) months of having received the PLU factor and usage reports from the other Party and each Party may request up to four (4) audits per annual period (but no more than one (1) audit per each consecutive three (3) month period).
- 3.3 Compensation for Call Transport and Termination:
 - 3.3.1 The following compensation rates shall apply for traffic originating from GST and terminating to GTE:
 - 3.3.1.1 Bill and Keep: Applicable to all Local Traffic, so long as traffic is in balance as defined in Section 3.4.
 - 3.3.1.2 Intrastate Switched Access Rates: Applicable to intraLATA toll calls based on GTE's intrastate Switched Access rates as found in GTE's Switched Access tariff.

- 3.3.1.3 Transit Rate: GST shall pay a tandem switching rate and, where applicable, the transport rate for transit traffic as set out in Appendix C when GST uses a GTE access tandem to terminate a call to a third-party LEC, another CLEC, or a wireless service provider. If GTE receives a call through GST's access tandem that originates from another CLEC or LEC or wireless service provider, neither Party will charge the other Party any rate elements for this call, regardless of whether the call is local or toll. GST will establish appropriate billing relationships directly with the other CLEC or LEC, except as described in Section 3.3.3.
- 3.3.2 The following compensation rates shall apply for traffic originating from GTE and terminating to GST:
 - 3.3.2.1 Bill and Keep: Applicable to all Local Traffic, so long as traffic is in balance as defined in Section 3.4.
 - 3.3.2.2 Intrastate Switched Access Rate: Applicable to intraLATA toll calls, based on GST's intrastate Switched Access rates as found in GST's switched Access tariff.
 - 3.3.2.3 Transit Rate: GTE shall pay a tandem switching rate and, where applicable, the transport rate, for transit traffic equal to the rate set in Section 3.3.1.3 when GTE uses a GST switch to terminate a call to a third-party LEC, another CLEC, or a wireless service provider. If GTE receives a call through GST's access tandem that originates from another CLEC or LEC or wireless service provider, neither Party will charge the other Party any rate elements for this call, regardless of whether the call is local or toll. GST will establish appropriate billing relationships directly with the other CLEC or LEC, except as described in Section 3.3.3.
- 3.3.3 For IntraLATA Toll Free Service calls where such service is provided by one of the Parties, the compensation set forth in Sections 3.3.1.2 and 3.3.2.2, above, shall be charged by the Party originating the call rather than the Party terminating the call.
- 3.4 The Parties shall assume that Local Traffic is roughly balanced between the Parties unless traffic studies indicate otherwise. Accordingly, the Parties agree to use a Bill and Keep Arrangement with respect to transport and termination of Local Traffic as described in Sections 3.3.1.1 and 3.3.2.1. After the first six (6) months from the commencement of the exchange of traffic, either Party may require that a joint traffic study be performed no more frequently than once a quarter. Should such traffic studies indicate on a statewide basis that either Party is terminating more than sixty percent (60%) of the Parties' total terminated minutes for Local Traffic, either Party may request that reciprocal compensation commence pursuant to Sections 3.5 and 3.6 of this Agreement. Nothing in this Section 3.4 shall be interpreted to (i) change compensation set forth in this

Agreement for traffic or services other than Local Traffic, including but not limited to internetwork facilities, access traffic or wireless traffic, or (ii) allow either Party to aggregate traffic other than Local Traffic for the purpose of compensation under the Bill and Keep Arrangement described in Sections 3.3.1 and 3.3.2 of this Article.

3.4.1 Reciprocal Compensation:

- 3.4.1.1 If either Party requests that reciprocal compensation commence pursuant to Section 3.4 the Parties agree to pay each other reciprocal compensation based on the rate for local interconnection "traffic out of balance" specified in Appendix C.
- 3.4.1.2 In the event that reciprocal compensation commences, GST shall charge GTE the tandem reciprocal compensation rate in addition to the end office reciprocal compensation rate for all calls terminated through GST's switch except for those calls to the NXX(s) assigned to GST's switch
- 3.5 In all cases where GST purchases GTE's local switching unbundled Network Element, compensation terms shall be as set forth in Appendices C & E.

3.6 Usage Measurement

- 3.6.1 Calculation. Each Party will calculate terminating interconnection minutes of use based on standard Automatic Message Accounting ("AMA") recordings made within each Party's network. GTE will use the record generation and CABS billing system described in Article VIII.
- 3.6.2 Measurement. Measurement of minutes of use over Local Interconnection Trunk Groups will be in actual conversation seconds wherever technically feasible. The total conversation seconds over such trunk groups will be totaled for the entire monthly bill and then rounded to the next whole minute.
- 3.6.3 Rendering of Usage Reports. Each Party will provide to the other, within twenty (20) calendar days after the end of each quarter (commencing with the first full quarter after the effective date of this Agreement), a usage report with the following information regarding traffic terminated over Local Interconnection Trunk Groups:
 - 3.6.3.1 Total traffic volume described in terms of minutes and messages and by call type where measured (local, toll, and other); and
 - 3.6.3.2 Percent Local Usage ("PLU").

3.6.4 If either Party does not provide to the other Party an updated PLU, the previous PLU will be utilized.

4. Direct Network Interconnection

- 4.1 Network Interconnection Architecture. Where the Parties mutually agree to directly interconnect their respective networks, interconnection will be as specified in the following subsections. GST will designate at least one IP in the LATA in which GST originates Local Traffic and interconnects with GTE. Each Party is responsible for bringing their facilities to the IP. GST will be responsible for engineering and maintaining its network on its side of the IP. GTE will be responsible for engineering and maintaining its network on its side of the IP. The IPs shall be set forth in Appendix A attached to this Agreement and made a part hereof.
 - 4.1.1 Subject to mutual agreement, the Parties may use the following types of network facility interconnection, using such interface media as are (i) appropriate to support the type of interconnection requested and (ii) available at the facility at which interconnection is requested. For each IP set forth in Appendix A, the Parties shall specify the type of interconnection used at that IP.
 - 4.1.1.1 A Mid-Span Fiber Meet within an existing GTE exchange area whereby the Parties mutually agree to jointly plan and engineer their facility meet-point at a designated manhole or junction location. The meet point is the demarcation between ownership of the fiber transmission facility. Each Party is individually responsible for its incurred costs in establishing this arrangement.
 - 4.1.1.2 A Physical or Virtual EIS arrangement at a GTE wire center pursuant to Article IX of this Agreement.
 - 4.1.1.3 A special access arrangement and/or switched transport terminating at a GTE wire center. These facilities will meet the standards set forth in GTE's special access and/or switched transport tariffs.
 - 4.1.2 Within ten (10) business days of GST's request for any IP, GTE will provide any information in its possession or available to it regarding the environmental conditions of the IP route or location including, but not limited to, the existence and condition of asbestos, lead paint, hazardous substance contamination, or radon. Information is considered "reasonably available" under this Agreement if it is in GTE's possession, or the possession of a current or former agent, contractor, employee, lessor, or tenant of GTE's and such possession is known to GTE at the time of the request.

- 4.1.3 If interconnection is complicated by the presence of environmental contamination or hazardous materials, and an alternative route is available, GTE will make such alternative route available for GST's consideration.
 - 4.1.3.1 When GST designates an IP, GTE shall allow GST to perform any environmental site investigations, including, but not limited to, asbestos surveys, GST believes to be reasonably necessary to support its IP.
- 4.2 Compensation for Use of Facilities for Local Interconnection. The following provisions apply regarding compensation for the facilities used for Local Interconnection:
 - 4.2.1 When the IP for the Local Interconnection Trunk Group is an arrangement that is not located in the same building as the GTE network switching entity where the Local Interconnection Trunk Group terminates, GST will pay GTE a monthly charge for the facility and the cross connect required to connect the IP to the GTE network switching entity where the Local Interconnection Trunk group terminates. The monthly charge will be based on the mutually agreed to capacity installed to transport the two-way traffic carried over the Local Interconnection Trunk Group. The applicable rate for special access transport DS1 and DS3 facilities will be as specified in Appendix C. GTE will apply charges based on the lesser of: (i) the airline mileage from the IP to the GTE switch; or (ii) the airline mileage from the GTE switch to the serving area boundary.
 - 4.2.2 If the Local Interconnection Trunk Group is established solely for the purpose of GTE originating intraLATA toll terminated to GST, a facilities charge will not apply. Should GST subsequently begin originating traffic to terminate to GTE over that Local Interconnection Trunk Group, the applicable DS1 or DS3 dedicated transport rate specified in Appendix C will apply.
 - 4.2.3 GTE will allow GST LATA-wide access for intraLATA toll traffic from a single access tandem interconnection. In return, GST will participate in the intraLATA toll compensation arrangement (i.e., IntraLATA Terminating Access Compensation ("ITAC")) that currently exists between GTE Northwest Incorporated and US West ("USW"). This participation will require GST to provide GTE (and USW) with records in the same format currently used by the industry for intraLATA compensation for intraLATA toll calls originating from an GST end user and utilizing the existing Feature Group C intraLATA toll network for transport and termination. GST will also be required to design a system that can receive these 99-02 records from the other primary toll providers.
 - 4.2.4 Where the IP for the Local Interconnection Trunk Group is an arrangement that is located in the same building as the GTE network switching entity where the Local Interconnection Trunk Group terminates, GTE will pay GST a monthly charge for the facility required to connect the IP to the GTE network switching entity where the Local Interconnection Trunk Group terminates. The monthly

charge will be based on the mutually agreed to capacity installed to transport the two-way traffic carried over the Local Interconnection Trunk Group. The applicable rate for DS1 or DS3 facilities will be based on GST's service that is comparable to GTE's special access DS1 or DS3 dedicated transport as specified in Appendix C. GST will apply charges based on the lesser of: (i) the airline mileage from the IP to the GST switch; or (ii) the airline mileage from the GTE switch to the serving area boundary.

- 4.3 Trunking Requirements. The Parties shall initially reciprocally terminate local exchange traffic and IntraLATA/InterLATA toll calls using the following trunking arrangements:
 - 4.3.1 The Parties will make available to each other Local Interconnection Trunk Groups.
 - 4.3.2 Separate two-way trunks will be made available for the exchange of equal-access InterLATA or IntraLATA toll traffic that transits GTE's network.
 - 4.3.3 The Parties agree to provide the following separate trunk groups:
 - 4.3.3.1 connecting GST's switch to each 911/E911 tandem utilizing MF signaling;
 - 4.3.3.2 between their switches and appropriate operator centers for provision of operator-assisted busy line interrupt/verify; and
 - 4.3.3.3 connecting GST's switch to GTE's directory assistance center in instances where GST is purchasing GTE's unbundled directory assistance service.
 - 4.3.3.4 In addition to those listed above, the Parties may elect to, at the expense of the Party requesting service, establish additional separate trunk groups as required.
 - 4.3.4 Each Party agrees to route traffic only over the proper jurisdictional trunk group. Each Party shall only deliver traffic over the Local Interconnection Trunk Groups to the other Party's access tandem for those publicly-dialable NXX Codes served by end offices that directly subtend the access tandem or to those wireless service providers that directly subtend the access tandem or for the termination of tandem-to-tandem local or intraLATA toll traffic specified in Section 4.2.3 above. In no event shall either Party route Switched Access Service traffic over Local Interconnection Trunk Groups, or Local Traffic over Switched Access Service trunks.

- 4.3.5 Reciprocal traffic exchange arrangement trunk connections shall be made at a DS-1, multiple DS-1 level, DS-3 or SONET where technically available.
- 4.3.6 A blocking standard of one-half of one percent (.005) will be maintained during the average busy hour, as defined by each Party's standards, for final trunk groups between a GST end office and a GTE access tandem carrying meet point traffic. Direct end office trunk groups are to be engineered with a blocking standard of one percent (.01).
- 4.3.7 GST and GTE shall share responsibility for all Control Office functions for Local Interconnection Trunks Groups. Control Office functions shall include the overall coordination, installation, and maintenance responsibilities for these trunks and trunk groups.

4.4 Trunk Ordering

- 4.4.1 Orders between the Parties to establish, add, change or disconnect trunks shall be processed by use of an Access Service Request (ASR), or another industry standard eventually adopted to replace the ASR for local service ordering.
- 4.4.2 The Parties will jointly manage the capacity of Local Interconnection Trunk Groups. GTE's Trunk Servicing Group will send a Trunk Group Service Request ("TGSR") to GST to trigger changes GTE desires to the Local Interconnection Trunk Groups based on GTE's capacity assessment. GST will issue an ASR to GTE:
- 4.4.3 within ten (10) business days after receipt of the TGSR upon review of and in response to GTE's TGSR, or
- 4.4.4 at any time as a result of GST's own capacity management assessment, to begin the provisioning process.
- 4.4.5 The interval used for the provisioning of Local Interconnection Trunk Groups will be determined by the Desired Due Date, or as mutually agreed upon by the Parties.
- 4.4.6 Orders that comprise a major project that directly impacts the other Party may be submitted at the same time, and their implementation will be jointly planned and coordinated. Major projects are those that require the coordination and execution of multiple orders or related activities between and among GTE and GST work groups, including but not limited to the initial establishment of Local Interconnection or Meet Point trunk groups and service in an area, NXX code moves, re-homes, facility grooming, or network rearrangements.

4.4.7 GST and GTE agree to exchange escalation lists which reflect contact personnel including vice president-level officers. These lists will include name, department, title, phone number, and fax number for each person. GST and GTE agree to exchange an up-to-date list on a quarterly basis.

4.5 Trunk Forecasting

- 4.5.1 The Parties will work towards the development of joint forecasting responsibilities for traffic utilization over trunk groups. Orders for trunks that exceed forecasted quantities for forecasted locations will be accommodated as facilities and or equipment are available. The Parties will make all reasonable efforts and cooperate in good faith to develop alternative solutions to accommodate orders when facilities are not available. Intercompany forecast information must be provided by the Parties to each other twice a year. The semi-annual forecasts will include:
 - 4.5.1.1 Yearly forecasted trunk quantities (which include measurements that reflect actual tandem and end office local interconnection and meet point trunks and tandem-subtending local interconnection end office equivalent trunk requirements for no less than a two (2) year period (current plus one year);
 - 4.5.1.2 The use of Common Language Location Identifier ("CLLI-MSG"), which are described in Bellcore documents BR 795-100-100 and BR 795-400-100 and also the use of the Trunk Group Serial Number ("TGSN") as described in BR 751-100-195;
 - 4.5.1.3 Description of major network projects that affect the other Party will be provided in the semi-annual forecasts. Major network projects include but are not limited to trunking or network rearrangements, shifts in anticipated traffic patterns, or other activities by either Party that are reflected by a significant increase or decrease in trunking demand for the following forecasting period.
 - 4.5.1.4 GTE and GST will work together to begin providing these forecasts within thirty (30) days after the Effective Date of this Agreement. New trunk groups will be implemented as dictated by engineering requirements for either GTE or GST.
- 4.5.2 Parties will meet to review and reconcile their forecasts if their respective forecasts differ significantly from one another.
 - 4.5.2.1 If the Parties are unable to reach such a reconciliation, the Local Interconnection Trunk Groups will be provisioned to the higher forecast.

At the end of three (3) months, the utilization of the Local Interconnection Trunk Groups will be reviewed and if the average CCS utilization for the third month is under seventy-five percent (75%) of capacity, either Party may issue an order to resize the trunk group, which will be left with not less than twenty-five percent (25%) excess capacity.

- 4.5.2.1.1 If the Parties agree on the original forecast and then it is determined that a trunk group is under seventy-five percent (75%) of CCS capacity on a monthly-average basis for each month of any six-month period, either Party may issue an order to resize the trunk group, which will be left with not less than twenty-five percent (25%) excess capacity.
- 4.5.3 Each Party will provide a specified point of contact for planning forecasting and trunk servicing purposes.
- 4.5.4 Trunking shall be provided as described in Section 4.3 of this Article and shall be subject to mutual agreement between the Parties. Initial trunking will be established between the GST switching centers and GTE's access tandem(s). The Parties will utilize direct end office trunking under any one of the following conditions:
 - 4.5.4.1 Tandem exhaust. If a tandem through which the Parties are interconnected is unable to, or is forecasted to be unable to, support additional traffic loads for any period of time, the Parties will mutually agree on an end office trunking plan that will alleviate the tandem capacity shortage and ensure completion of traffic between GST and GTE end users.
 - 4.5.4.2 Traffic volume. The Parties may jointly study the possibility of installing direct end office trunking sufficient to handle actual or reasonably forecast traffic volumes, whichever is greater, between an GST switching center and a GTE end office where the traffic exceeds the requirement of forty- eight (48) trunks during the busy season average busy hour.
 - 4.5.4.3 Mutual agreement. The Parties may install direct end office trunking upon mutual agreement in the absence of conditions set forth in Sections 4.5.4.1 or 4.5.4.2 above and such agreement will not unreasonably be withheld.
- 5. <u>Indirect Network Interconnection</u>. Neither Party shall deliver traffic destined to terminate at the other Party's end office via another LEC's end office. In addition, neither Party shall deliver traffic destined to terminate at an end office subtending the other Party's access tandem via another LEC's access tandem except for tandem-to-tandem traffic specified in Section 4.2.3. Either Party may deliver traffic destined to terminate at the other Party's end office via another

LEC's tandem provided that the Parties have established compensation agreement(s) specific to this arrangement.

6. Meet-Point Billing

6.1 Meet-Point Arrangements

- 6.1.1 GST may establish Meet-Point Billing ("MPB") arrangements with GTE in order to provide Switched Access Services to third parties via a GTE access tandem in accordance with the MPB guidelines adopted by and contained in the Ordering and Billing Forum's MECAB and MECOD documents, except as modified herein.
- 6.1.2 Except in instances of capacity limitations, GTE shall permit and enable GST to sub-tend the GTE access tandem(s) nearest to the GST Rating Point(s) associated with the NPA-NXX(s) to/from which the Switched Access Services are homed. In instances of capacity limitation at a given access tandem, GST shall be allowed to subtend the next-nearest GTE access tandem in which sufficient capacity is available.
- 6.1.3 Interconnection for the MPB arrangement shall occur at the IP.
- 6.1.4 Common Channel Signaling shall be utilized in conjunction with MPB arrangements to the extent such signaling is resident in the GTE access tandem switch.
- 6.1.5 GST and GTE will use diligent 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, sufficient to reflect this MPB arrangement, including MPB percentages.
- 6.1.6 GST and GTE will, in a timely fashion, exchange all information necessary to accurately, reliably and promptly bill third parties for Switched Access Services traffic jointly handled by GST and GTE via the meet-point arrangement as defined in the MECAB document. Information shall be exchanged in Exchange Message Record ("EMR") format, on magnetic tape or via a mutually acceptable electronic file transfer protocol.
- 6.1.7 GST and GTE shall work cooperatively to coordinate rendering of Meet-Point bills to customers, and shall reciprocally provide each other usage data and related information at no charge.

- 6.1.8 The Parties agree to exchange Billing Account Reference ("BAR" as defined by MECAB) and Billing Account Cross-Reference ("BACR" as defined by MECAB) information and will coordinate Initial Billing Company/Subsequent Billing Company ("IBC/SBC" as defined by MECAB) billing cycles.
- 6.1.9 The Parties agree to exchange test files to support the initial implementation of the processes defined in this agreement, and any subsequent changes.
- 6.1.10 GTE shall provide to GST the billing name, billing address, and carrier identification code ("CIC") of the IXCs that may utilize any portion of GST's network in a GST/GTE MPB arrangement in order to comply with the MPB notification process as outlined in the MECAB document. Such information shall be provided to GST in the format and via the medium that the Parties agree. Ongoing CIC information is provided by the ordering IXC in accordance with OBF guidelines, and GTE will assist GST as outlined in Article VIII Section 1.3.7 and Appendix D to this Agreement.
- 6.1.11 GTE and GST 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, their portion of local transport charges, RIC and CCL charges, as appropriate, and such other applicable charges.
- 6.1.12 If MPB data is not processed and delivered by GTE and sent to GST at least twice a week, and in no event later than four (4) business days after the recording, and in turn GST is unable to bill the IXC for the appropriate charges, GTE will be held liable for the amount of the unbillable charges.
- 6.1.13 If MPB data is not processed and delivered by GST and sent to GTE within fifteen (15) business days of the billing and in turn GTE is unable to bill the IXC for the appropriate charges, GST will be held liable for the amount of the unbillable charges.
- 6.1.14 Errors in MPB data exchanged by the Parties may be discovered by GST, GTE or the billable IXC. Both GST and GTE agree to provide the other Party with notification of any discovered errors within three (3) 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.

Art IV - 12

If MPB data is lost due to incorrectable errors or otherwise, the responsible Party shall reimburse the other Party for the lost data based on the applicable tariffed rates.

6.2 Compensation

- 6.2.1 Initially, billing to third parties for the Switched Access Services jointly provided by GST and GTE via the MPB arrangement shall be according to the multiple-bill/single tariff method.
- 6.2.2 Subsequently, GST and GTE may mutually agree to implement one of the following options for billing to third parties for the Switched Access Services jointly provided by GST and GTE via the MPB arrangement: single-bill/single tariff method, single-bill/multiple tariff method, multiple-bill/single tariff method, or to continue the multiple-bill/multiple tariff method. Should GST prefer to change among these billing methods, GST shall notify GTE of such a request in writing, ninety (90) days in advance of the date on which such change is desired to be implemented.
- 6.2.3 Provisioning. The Parties agree to adhere to the Access Service Coordination ("ASC") guidelines for the ordering, installation and maintenance responsibility for jointly provided facilities and trunks used for meet point billing as described in Appendix D of this Agreement.

7. Common Channel Signaling

- 7.1 Service Description. The Parties will provide Common Channel Signaling ("CCS") to one another via Signaling System 7 ("SS7") network interconnection, where and as available, in the manner specified in FCC Order 95-187, in conjunction with all traffic exchange trunk groups.
- 7.2 Signaling protocol. The Parties will interconnect their networks using SS7 signaling (where available) as defined in GR-317 and GR-394 including ISDN User Part ("ISUP") for trunk signaling and Transaction Capabilities Application Part ("TCAP") for CCS-based features in the interconnection of their networks. All Network Operations Forum ("NOF") adopted standards shall be adhered to.
- 7.3 Where SS7 is available, the Parties will provide CCS to each other in conjunction with all trunk groups supporting local, transit, and toll traffic. The Parties will cooperate on the exchange of Transactional Capabilities Application Part ("TCAP") messages to facilitate full inter-operability of CCS-based features between their respective networks, including all CLASS features and functions. All CCS signaling parameters will be provided including automatic number identification ("ANI"), originating line information ("OLI"), calling party category, charge number, etc. All privacy indicators will be

honored. For terminating FGD, GTE will pass CPN if it receives CPN from FGD carriers. Also included are all available parameters relating to network signaling information, such as Carrier Information Parameter ("CIP"), wherever such information is needed for call routing or billing. Where available, network signaling information such as Transit Network Selection ("TNS") parameter (CCS platform) and CIC/OZZ information (non-CCS environment) will be provided by GST wherever such information is needed for call routing or billing. The Parties will follow all OBF adopted standards pertaining to TNS and CIC/OZZ codes.

- 7.4 Connection Through STP. GST must interconnect with the GTE STP(s) serving the LATA in which the traffic exchange trunk groups are interconnected. Additionally, all interconnection to GTE's 800/888 database and GTE's LIDB shall take place only through appropriate STP pairs.
- 7.5 Third-Party Signaling Providers. GST may choose a third-party SS7 signaling provider to transport messages to and from the GTE SS7 network. In that event, that third-party provider must present a letter of agency to GTE, prior to the testing of the interconnection, authorizing the third party to act on behalf of GST in transporting SS7 messages to and from GTE. The third-party provider must interconnect with the GTE STP(s) serving the LATA in which the traffic exchange trunk groups are interconnected.
- 7.6 Multi-Frequency Signaling. In the case where CCS is not available, in band Multi-Frequency ("MF"), wink start, E & M channel associated signaling with ANI will be provided by the Parties. Network signaling information, such as CIC/OZZ, will be provided wherever such information is needed for call routing or billing.
- 7.7 Interconnection Facilities. Standard interconnection facilities shall be Extended Superframe (ESF) with B8ZS line code. Where ESF/B8ZS is not currently technically feasible, GST will agree to using other interconnection protocols on an interim basis until the standard ESF/B8ZS is available. GTE will provide anticipated dates of availability for those areas not currently ESF/B8ZS compatible.
- 7.8 Where GST is unwilling to utilize an alternate interconnection protocol, GST will provide GTE an initial forecast of sixty-four (64) Kbps Clear Channel Capability ("64K CCC") trunk quantities within thirty (30) days of executing this Agreement consistent with the forecasting agreements between the Parties. Upon receipt of this forecast, the Parties will begin joint planning for the engineering, procurement, and installation of the segregated 64K CCC Local Interconnection Trunk Groups, and the associated B8ZS Extended Super Frame ("ESF") facilities, for the sole purpose of transmitting 64K CCC data calls between GST and GTE. Where additional equipment is required, such equipment would be obtained, engineered, and installed on the same basis and with the same intervals as any similar growth job for IXC, CLEC, or GTE internal subscriber demand for 64K CCC trunks. GST will bear the costs for the equipment and engineering of one-way trunks. Where technically feasible, these trunks will be established as two-way and the Parties shall share the cost.

8. Network Management

- 8.1 Protective Protocols. Either Party may use protective network traffic management controls such as 7-digit and 10-digit code gaps on traffic to each other's respective networks, when required to protect the public switched network from congestion due to facility failures, switch congestion or failure or focused overload. GST and GTE will immediately notify each other of any protective control action planned or executed.
- 8.2 Expansive Controls. If the capability exists, originating or terminating traffic reroutes may be implemented by either Party to temporarily relieve network congestion due to facility failures or abnormal calling patterns. Reroutes will not be used to circumvent normal trunk servicing. Expansive controls will only be used when mutually agreed to by the Parties.
- 8.3 Mass Calling. GST and GTE will cooperate and share pre-planning information, where available, regarding cross-network call-ins expected to generate large or focused temporary increases in call volumes, to prevent or mitigate the impact of these events on the public switched network

9. Responsibilities Of The Parties

9.1 GST and GTE shall:

- 9.1.1 Provide trained personnel with adequate and compatible test equipment to work with each other's technicians.
- 9.1.2 Notify each other when there is any change affecting the service requested, including the due date.
- 9.1.3 Coordinate and schedule testing activities of their own personnel, and others as applicable, to ensure its interconnection trunks/trunk groups are installed per the interconnection order, meet agreed-upon acceptance test requirements, and are placed in service by the due date.
- 9.1.4 Perform sectionalization to determine if a trouble is located in its facility or its portion of the interconnection trunks prior to referring the trouble to each other.
- 9.1.5 Advise each other's Control Office if there is an equipment failure which may affect the interconnection trunks.
- 9.1.6 Provide each other with a trouble reporting/repair contact number that is readily accessible and available twenty-four (24) hours a day/seven (7) days a

week. Any changes to this contact arrangement must be immediately provided to the other Party.

- 9.1.7 Provide to each other test-line numbers and access to test lines.
- 9.1.8 Cooperatively plan and implement coordinated repair procedures for the meet point and Local Interconnection Trunks and facilities to ensure trouble reports are resolved in a timely and appropriate manner.

1. Interconnection Services Covered by This Article]
2. Billing and Rates	
3. Transport and Termination of Traffic	4
4. Direct Network Interconnection	
5. Indirect Network Interconnection.	10
6. Meet Point Billing	. 1
7. Common Channel Signaling	
8. Network Management	
9. Responsibilities Of The Parties	

ARTICLE V

RESALE OF SERVICES

- 1. Telecommunications Services Provided for Resale
 - 1.1 At the request of GST, and pursuant to the requirements of the Act, and FCC Rules and Regulations, GTE shall make available to GST for unrestricted resale all Telecommunications Services that GTE currently provides or may offer hereafter at retail to subscribers who are not Telecommunications Carriers. Resale shall be unrestricted except as provided herein. GTE shall also provide service functions, as set forth in Section 3.4 of this Article. The Telecommunications Services and service functions provided by GTE to GST pursuant to this Article are collectively referred to as "Local Resale".
 - 1.2 To the extent that this Article describes services which GTE shall make available to GST for resale pursuant to this Agreement, this list of services is neither all inclusive nor exclusive. All Telecommunications Services of GTE which are to be offered for resale are subject to the terms herein.
 - 1.3 Features and Functions Subject to Resale. GTE shall make all of the Telecommunications Services that it currently provides, or may hereafter offer, to end users available for resale to GST on terms and conditions that are reasonable and nondiscriminatory.
 - 1.4 GTE will provide GST with at least the capability to provide an GST subscriber at least the same level of service quality as GTE provides its own subscribers with respect to all Telecommunications Services and shall provide such capability in accordance with the specific requirements of Article VIII.
 - 1.5 The specific business process requirements and systems interface requirements are set forth in Article VIII.
 - 1.6 GTE shall release information to GST regarding the subscriber's service, without requiring GST to produce a written Letter of Authorization ("LOA"), based on GST's blanket representation that the customer has authorized GST to obtain such CPNI. GST and GTE agree to comply with the CPNI requirements of the Act and related FCC orders.
 - 1.7 GTE shall allow GST to initiate "as is transfers" of local exchange telecommunications services. For purposes for this Section 1.7, an "as-is transfer" is the transfer of all the telecommunication services and features available for resale that are currently being provided for the specified account without the requirement of a specific

enumeration of the services and features on the Local Service Request ("LSR") without interruption of service.

- 1.8 Responsibility for Payment of the End User Common Line ("EUCL") Charge. The EUCL from GTE Tariff No. 1 will be billed to GST who will be responsible for payment.
- 2. <u>No Restrictions on Resale</u>. GST may resell to any and all classes of end users Telecommunications Services obtained from GTE under this Agreement and subject to applicable tariffs. Notwithstanding the foregoing, to the extent that there is a conflict between the terms, conditions and other matters in such tariffs, and any specific provision of this Agreement, the terms and conditions of this Agreement shall control.

2.1 Restrictions on Resale

- 2.1.1 GST agrees not to resell Residential Access Lines to non-residential subscribers.
- 2.1.2 GST agrees not to resell Lifeline or Link-Up Service to non-qualifying residential customers.

3. Resale Provisions

- 3.1 Inside wire maintenance and voice mail service are not available for resale; and
- 3.2 Services to the disabled are not available for resale.
- 3.3 Requirements for Specific Services

3.3.1 CentraNet Requirements

- 3.3.1.1 At GST's option, GST may purchase the entire set of CentraNet features or a subset of any one or any combination of such features. The CentraNet Service provided for resale will meet the requirements of this Subsection 3.3.1; provided, however, that in all cases, GST may purchase only those features and functions that are offered to GTE's retail customers.
- 3.3.1.2 All features and functions of CentraNet Service, including CentraNet Management System ("CMS"), whether offered under tariff or otherwise, shall be available to GST for resale.
- 3.3.1.3 GTE shall make CMS information available to GST at the End Office level via an EDI interface.

- 3.3.1.4 GTE shall provide to GST a list by central office of all CentraNet or CentraNet-like features and functions offered by GTE within ten (10) days of the Effective Date of this Agreement, and shall provide updates to such list as specified in Article VIII.
- 3.3.1.5 [Section 3.3.1.5 is Reserved]
- 3.3.1.6 [Section 3.3.1.6 is Reserved]
- 3.3.1.7 GST may require that GTE suppress the need for GST subscribers to dial "9" when placing calls outside the CentraNet System.
- 3.3.1.8 GST may use among other methods remote call forwarding in conjunction with CentraNet Service to provide service to GST local service subscribers residing outside of the geographic territory in which GTE provides local exchange service.
- 3.3.1.9 GST may purchase any and all offered levels of CentraNet Service for resale, without restriction on the minimum or maximum number of lines that may be purchased for any one level of service.
- 3.3.1.10 GTE shall make available to GST for resale, at no additional charge, intercom calling among all GST subscribers who utilize resold CentraNet Service.
- 3.3.1.11 GST may utilize Automatic Route Selection ("ARS") to provision access.
- 3.3.2 GTE shall offer for resale Lifeline and Link-up service. GTE will obtain any subsidy associated with a subscriber transfer to GST.

3.3.3 N11 Service

- 3.3.3.1 GTE agrees not to offer any new N11 services after the Effective Date of this Agreement unless GTE makes any such service available for resale.
- 3.3.3.2 GST shall have the right to resell any N11 service, including but not limited to 411, 611 or 911 services, existing as of the Effective Date. These services shall be unbranded or rebranded and routed to GST, as required by GST pursuant to Article III.
- 3.3.4 Contract Service Arrangements, Special Arrangements, and Promotions. GTE shall offer for resale all of its services available to any retail subscriber,

including but not limited to Contract Service Arrangements, Special Arrangements and Promotions.

- 3.3.4.1 Contracts. GTE shall offer for resale all existing (as of the Effective Date of this Agreement) contract service arrangements with end users. GTE shall offer for resale all future contract service arrangements. GST will receive either the contract volume discount rate or the wholesale rate, whichever is the larger discount.
- 3.3.4.2 Promotions. Promotions not exceeding ninety (90) days in length shall be available for resale at GTE's promotional rate, at GST's option, and the wholesale discount shall not apply. Promotions exceeding ninety (90) days in length shall be available for resale at GTE's promotional rate less the wholesale discount specified in Appendix C. Promotions include both discounts and non-monetary benefits such as premiums and offers.
- 3.3.5 [Section 3.3.5 is Reserved]
- 3.3.6 Hospitality Service. GTE shall provide all blocking, screening, and all other applicable functions available for hospitality lines.
- 3.3.7 Telephone Line Number Calling Cards. Upon request by an GST Customer or by GST on behalf of an GST Customer, and effective as of the date of an end user's subscription to GST service (or such later date as such request is received, GTE will remove any GTE-assigned telephone line calling card number (including area code) ("TLN") from GTE's LIDB. GST may issue a new telephone calling card to such customer, utilizing the same TLN, and GST shall have the right to store such TLN in GTE's LIDB for calling card validation purposes.
- 3.3.8 Grandfathered Services. GTE shall offer for resale to GST all grandfathered services. GST may only resell grandfathered services to subscribers who currently subscribe to such grandfathered service. For purposes of this Agreement, a grandfathered service is a service that GTE offers to existing retail subscribers but not to new subscribers.
- 3.3.9 Discount Plans and Services. GTE shall offer for resale at wholesale discounts all Discount Plans and Services in accordance with FCC Rules and Regulations. Should GST qualify to purchase Telecommunications Services at a volume discount, GST may purchase such Telecommunications Services at either the volume discount rate or the wholesale rate, whichever is the larger discount.
- 3.3.10 Notice of Changes to Retail Offerings

- 3.3.10.1 If GTE introduces new retail Telecommunications Services, modifies existing services, or plans to discontinue existing retail services, GTE will notify GST of the proposed new or modified retail services or planned discontinuance of existing services forty-five (45) days prior to the expected date of regulatory approval of the new or modified service or discontinuation of a service provided, however, that if the new or modified services are introduced or existing services discontinued with less than forty-five (45) days notice to the Commission, GTE will notify GST at the same time that it determines to introduce the new or modified service or discontinue the existing service.
- 3.3.10.2 With respect to changes in the rates for existing retail services and their corresponding wholesale rates, GTE will notify GST of proposed changes in rates at the same time as GTE begins internal implementation efforts (i.e., at least at the time when the GTE Product Management Committee is notified of the proposed change) or obtains internal approval to make a change in retail rates or corresponding wholesale rates, whichever is sooner.
- 3.3.11 Subject to Sections 2 and 3 of this Article, GTE shall make available for GST to resell at the wholesale discount all coin and coinless pay phone local services, features and functionalities that it provides at retail. GTE also must provide all support and service functions, as described in Section 276 of the Act and FCC and state regulations, at parity with those provided for its own pay phone local services including, but not limited to: (a) coin rating, (b) answer supervision, (c) access to maintenance/diagnostic platform, (d) call blocking, (e) call screening, (f) intraLATA timing, (g) far-end disconnect recognition, (h) ANI information digits, and (i) fraud protection. GTE must also provide billing detail showing all 1+ traffic in EMR format and transferred to GST via Direct Connect.
- 3.3.12 Caller ID. GTE shall cooperate with GST to provide tariffed equipment associated with Caller ID.
- 3.4 Advanced Intelligent Network. GST may purchase for resale without restriction on a subscriber-specific basis the entire set of Advanced Intelligent Network ("AIN") services available at retail to GTE's subscribers. The type and quality of AIN services, service levels, features and function components provided by GTE to GST for resale shall be at parity with what GTE provides to its retail subscribers.
 - 3.4.1 GST may purchase any AIN services for resale, without restriction on the minimum or maximum number of lines or features that may be purchased.
- 3.5 Service Functions

- 3.5.1 Resold Directory Assistance and Operator Services provided to GST subscribers shall be unbranded. GTE shall provide branded services when technically feasible. Branding, includes front-end, back-end, and non-branding. GST shall have the option of providing its own branding materials.
- 3.5.2 GTE shall provide GST with the customer's current status regarding tax exemption or eligibility for reduced charges associated with providing services, including but not limited to handicapped individuals, and certain governmental bodies and public institutions via the CSR.
- 3.5.3 GTE shall provide GST with appropriate notification of all calling area boundary changes with line level detail one hundred twenty (120) days before service changes.
- 3.5.4 GTE will work cooperatively with GST in practices and procedures regarding the handling of law enforcement and service annoyance calls.
- 3.5.5 Pricing. The prices charged to GST for Local Resale are set forth in Appendix C of this Agreement.
- 3.5.6 Within thirty (30) days after the Effective Date of this Agreement, the Parties shall begin developing a direct-dial method for subscribers to confirm their local exchange carrier selection. The agreed-upon method will allow GST and GTE subscribers to dial the same number of digits to confirm that their calls are being carried by their chosen local service provider. The method may, for example, function similarly to the "700" number used nationally to confirm presubscribed interexchange carrier selection. It must not foreclose migration to a nationwide confirmation method should one be developed.

1.	Telecommunications Services Provided for Resale	
2	No Restrictions on Resale.	2
	Resale Provisions	
Ι.	Resale Fiuvisions	4

ARTICLE VI

UNBUNDLED NETWORK ELEMENTS

- 1. <u>Introduction</u>. GTE shall provide unbundled Network Elements in accordance with this Agreement, the Telecommunications Act of 1996, and applicable (and in force) State, FCC Rules and Regulations. The price for each Network Element is governed by Appendix C of this Agreement. Except as otherwise set forth in this Article, GTE shall provide unbundled Network Elements to GST as soon as reasonably practicable after the Effective Date of this Agreement.
 - 1.1 The Parties recognize that equipment vendors may manufacture telecommunications equipment that does not fully incorporate or may deviate from Industry Standards referenced in this Agreement. Due to the manner in which individual equipment manufacturers have chosen to implement industry standards into the design of their products, along with differing vintages of these individual facility components and the presence of embedded technologies that pre-date current Technical Standards, some of the individual facility components deployed within GTE's network may not adhere to all of the specifications presented in the Bellcore, ANSI, ITU and other technical and performance standards outlined in this Agreement. However, the design and provisioning of facilities and services by GTE is performed consistent with the technical requirements as defined in the Bellcore Technical Interface Reference Manual ("TIRM"). Furthermore, individual facility components (i.e. Digital Loop Carrier ("DLC"), Next Generation Digital Loop Carrier ("NGDLC"), Fiber Optic Terminals (Async or SONET), etc.) perform within the technical requirements as defined by the TIRM. Within forty-five (45) days after the Effective Date of this Agreement, the Parties will develop processes by which GTE will inform GST of deviations from Standards for Network Elements ordered by GST. Further, the Parties agree that those documented deviations from such standards documented by GTE to GST shall supersede sections of technical standards applicable to such deviations referenced in this Agreement.

2. Unbundled Network Elements

- 2.1 GTE shall offer Network Elements to GST 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.
- 2.2 GTE shall permit GST to connect GST's facilities or facilities provided to GST by third parties with each of GTE's unbundled Network Elements at any point designated by GST that is technically feasible.
- 2.3 GST may use one or more Network Elements to provide any feature, function, capability, or service option that such Network Element(s) is capable of providing or any feature, function, capability, or service option that is described in the technical references identified herein, or as may otherwise be determined by GST.

Art VI - 1

- 2.3.1 GST may, at its option, designate any technically feasible method of access to unbundled elements, including access methods currently or previously in use by GTF.
- 2.4 GTE shall offer each Network Element individually and in combination with any other Network Element or Network Elements in order to permit GST to provide Telecommunications Services to its subscribers.
- 2.5 For each Network Element, GTE shall provide a demarcation point (e.g., at a Digital Signal Cross-Connect, Fiber Patch panel or its equivalent or a Main Distribution Frame) and, where mutually agreed, access to such demarcation points. However, where GTE provides combined Network Elements at GST's direction, no unnecessary demarcation point shall exist between such contiguous Network Elements.
- 2.6 Except as described in Appendix C or otherwise noted in this Article, charges in Attachment 1 to Appendix C are inclusive and no other charges apply, including but not limited to any other consideration for connecting any Network Element(s) with other Network Element(s).
- 2.7 This Article VI describes the initial set of Network Elements which GST and GTE have identified as of the Effective Date of this Agreement:
 - 2.7.1 GST and GTE agree that the Network Elements identified in this Article VI are not all possible Network Elements.
 - 2.7.2 GST may identify additional or revised Network Elements as necessary to provide Telecommunications Services to its subscribers, to improve network or service efficiencies or to accommodate changing technologies, subscriber demand, or other requirements.
 - 2.7.3 GST will request such additional Network Elements in accordance with the Bona Fide Request Process described in Article III. Pursuant to Section 252(i) of the Act, if GTE provides any Network Element under an agreement approved under Section 252 of the Act to which it is a party, GTE shall make available the same Network Element to GST on the same terms and conditions as those provided to other Telecommunications Services providers. Prices for such Network Elements shall be determined pursuant to Appendix C, Section 1.7.
- 2.8 In addition, GTE agrees to provide operator systems (i.e., GTE provided operator services and directory assistance) as Network Elements. Description of and requirements for GTE operator systems are found in Articles V and VII of this Agreement.

3. Requirements

- 3.1 Each Network Element shall be furnished at a service level equal to or better than the requirements set forth in the technical references referenced in the following, as well as any performance or other requirements, identified herein. In the event 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, GST may elect, through the Bona Fide Request ("BFR") process, that such standard shall apply.
- 3.2 If one or more of the requirements set forth in this Agreement are in conflict, the Parties shall negotiate in good faith to resolve any such conflicts.
- 3.3 GTE shall provide to GST each Network Element on a nondiscriminatory basis in terms of the quality of design, performance, features, functions, capabilities and other characteristics, including but not limited to levels and types of redundant equipment and facilities for power, diversity and security, as compared to that which GTE provides to itself, GTE's own subscribers, to a GTE Affiliate or to any other entity, whichever is greater, as requested by GST.
 - 3.3.1 If GST is experiencing service difficulties, GTE will work with GST to resolve any problems found in GTE's network. Upon request, the Parties shall provide to each other engineering, design, performance and other network data sufficient for them to determine where the service difficulties have occurred and why. In the event that such data indicates that the requirements of this Article VI are not being met, and that GTE's network is the problem, GTE shall, within ten (10) business days, cure any design, performance or other deficiency and provide new data sufficient for GST to determine that such deficiencies have been cured. To the extent GTE is unable to meet the above timeframe, GTE shall promptly notify GST prior to the expiration of such timeframe and the Parties shall agree on a revised completion date.
 - 3.3.2 GTE agrees to work cooperatively with GST to provide Network Elements that will meet GST's needs in providing services to its subscribers.
- 3.4 Each Network Element and the connections between Network Elements provided by GTE to GST shall be made available to GST on the same priority basis that GTE provides to itself, GTE's own subscribers, to a GTE Affiliate or to any other entity.
- 4. <u>Network Interface Device</u>. The Network Interface Device ("NID") is as defined in Article II of this Agreement.
 - 4.1 Direct Connection. GST shall be permitted to connect its own Loop directly to GTE's NID in cases in which GST uses its own facilities to provide local service to an end user formerly served by GTE, as long as such direct connection does not adversely affect GTE's network. In order to minimize any such adverse effects, GST shall follow the procedures in Sections 4.1.1, 4.1.2 and 4.1.3 below.

- 4.1.1 When connecting its own loop facility directly to GTE's NID for a residence or business customer, GST must make a clean cut on the GTE drop wire at the NID so that no bare wire is exposed. GST shall not remove or disconnect GTE's drop wire from the NID or take any other action that might cause GTE's drop wire to be left lying on the ground.
- 4.1.2 At multi-tenant customer locations, GST must remove the jumper wire from the distribution block (i.e., the NID) to the GTE cable termination block. If GST cannot gain access to the cable termination block, GST must make a clean cut at the closest point to the cable termination block.

At GST's request and discretion, GTE will determine the cable pair to be removed at the NID in multi-tenant locations. GST will compensate GTE for the trip charge necessary to identify the cable pair to be removed.

- 4.1.3 GST will assume responsibility for ensuring that the proper over voltage protection is maintained to protect the customer premise.
- 4.1.4 Figure 1 shows a schematic of a NID.

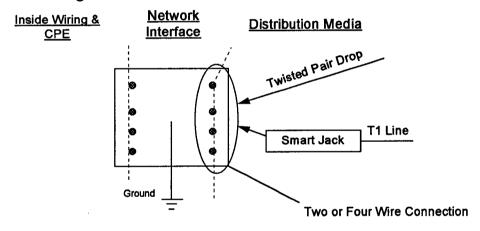


Figure 1 - Network Interface Device

- 4.1.5 With respect to multiple-line termination devices, GST shall specify the quantity of NIDs it requires within such device.
- 4.1.6 GTE agrees to offer NIDs for lease to GST but not for sale.
- 4.2 NID to NID Connection. Rather than connecting its loop directly to GTE's NID, GST may also elect to install its own NID and effect a NID to NID connection to gain access to the end user's inside wiring.

4.3 NID Ordering, Dispatch and Tagging

- 4.3.1 When orders for simple unbundled NIDs (i.e., serving a single subscriber) are received by GTE, GTE shall make available to GST information, where available, indicating the type of NID currently employed. When orders for complex unbundled NIDs (i.e., multi-user) are received by GTE, GTE shall make available to GST information indicating the type of NID currently employed. To the extent available, GTE shall provide binding post information to GST. If GTE cannot provide such information, GTE will dispatch a service technician as provided in Section 4.3.2 below
- 4.3.2 Dispatch. Provision of access to unbundled NIDs will normally not involve dispatch or field work by GTE. If the Parties agree that dispatch is required to perform work on GST's behalf (e.g., to clear or make available spare binding posts in the GTE NID or to secure GTE's facilities at the premises), then GTE will dispatch a service technician to complete all necessary work at the customer's premise to protect GTE's facilities. Dispatch charges as set forth in Appendix C shall apply. GTE will not apply Dispatch charges when it is necessary to perform activities to repair connector blocks or binding posts that are inoperable or to identify binding posts.
- 4.3.3 Tagging End User Customer Facilities. Upon request, GTE will dispatch a technician to tag the end user customer's inside wire facilities on the customer's side of the NID. In such cases, a dispatch charge shall apply, as specified in Appendix C.

4.4 Technical Requirements

- 4.4.1 The Network Interface Device shall provide a clean, accessible point of connection for the inside wiring and for the Distribution Media and/or cross-connect to GST's NID and shall maintain a connection to ground that meets the requirements set forth below.
- 4.4.2 The NID shall be capable of transferring electrical analog or digital signals between the subscriber's inside wiring and the Distribution Media and/or cross connect to GST's NID.
- 4.4.3 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 shall be free of rust or corrosion and have continuity relative to ground.
- 4.4.4 The NID shall be capable of withstanding all normal local environmental variations.

- 4.4.5 The NID shall be physically accessible to GST designated personnel. In cases where entrance to the subscriber premises is required to give access to the NID, GST shall obtain entrance permission directly from the subscriber.
- 4.4.6 GTE shall offer the NID together with, and separately from Loop Distribution or the Loop.
- 4.4.7 GTE is responsible for the maintenance and testing of the NID when it is leased as part of the unbundled loop.
- 4.4.8 When GST no longer wishes to lease the GTE NID, GST is responsible for ensuring that this equipment is left in comparable condition to that which it was originally leased.

4.5 Interface Requirements.

- 4.5.1 The NID shall be the interface to subscribers' premises wiring for all loop technologies.
- 4.5.2 The performance of the NID shall be equal to or better than all of the industry standards for NIDs set forth in the following technical references:
 - 4.5.2.1 Bellcore Technical Advisory TA-TSY-000120 "Subscriber Premises or Network Ground Wire";
 - 4.5.2.2 Bellcore Generic Requirement GR-49-CORE "Generic Requirements for Outdoor Telephone Network Interface Devices";
 - 4.5.2.3 Bellcore Technical Requirement TR-NWT-00239 "Indoor Telephone Network Interfaces";
 - 4.5.2.4 Bellcore Technical Requirement TR-NWT-000937 "Generic Requirements for Outdoor and Indoor Building Entrance"; and,
 - 4.5.2.5 Bellcore Technical Requirement TR-NWT-0001 33 "Generic Requirements for Network Inside Wiring."

5. Loop Elements

5.1 Definition

5.1.1 A Loop is a transmission facility between a distribution frame or its equivalent in a GTE Central Office or Wire Center and the NID at a subscriber's premises, to which GST is granted exclusive use. Loop types include, but are not

limited to, two-wire and four-wire analog voice-grade loops, and two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide ISDN, ADSL, HDSL, and DS1-level signals. A Loop may be composed of the following components:

Network Interface Device (NID) (See Section 4) Loop Concentrator / Multiplexer Loop Feeder Loop Distribution

- 5.1.2 Basic Loop. The Basic Loop is a 2-wire copper facility or functional equivalent which will meet industry standard specifications for Voice Frequency transmission. The Basic Loop may include load coils, bridge taps, etc., or may include carrier derived facility components (i.e. pair gain applications, loop concentrator/multiplexers). The Basic Loop will be designed within industry design parameters with a loop loss (from customer to MDF) which does not exceed 10 dB and with a noise level less than 30 dbrnC. For loaded loops, the Bridge Tap and End section will be between 3 and 12 kFt.
- 5.1.3 Special Conditioning Requirements. The Basic Loop will be provided to GST at parity with GTE customers and will comply with the specifications noted in this Section 5.1. Transmission of signaling messages or tones not provided by these specifications will be provided to GST, as agreed between GST and GTE. When placing an order for unbundled Loop and Sub-Loop elements, GST will notify GTE of any special requirements. Special conditioning to provide such requirements will be provided on a case-by-case basis, if technically feasible. GST agrees to bear the cost of any such special conditioning. Types of Loops which may require such conditioning include 2W/4W PABX Trunks, 2W/4W voice grade private line and foreign exchange lines, 4W digital data (2.4Kbps through 64Kbps), etc.
- 5.1.4 ISDN BRI Loops. Upon request by GST, GTE will provide 2W loops capable of transmitting ISDN data rates, where technically feasible. For loops up to 18,000 feet from the MDF to the customer, the Loops will be designed within industry design parameters with a loss not to exceed 42 dB at 40kHz. Bridge taps will not exceed 2,500 feet with no single bridge tap greater than 2,000 feet. Customers located greater than 18,000 feet from the MDF will require special Loop provisioning at an additional charge.
- 5.1.5 4-Wire DS-1 Loops/ISDN PRI. These Loops will be designed to support a digital transmission rate of 1,544,000 bps. These Loops will be designed within industry parameters and have no bridge taps or load coils. These Loops will employ special line treatment (span line repeaters, office terminating repeaters at the GTE wire center or similar technology).

- 5.1.6 Features, Functions, Attributes, Etc. To the degree possible, all transport-based features, functions, service attributes, grades-of-service, installation, maintenance and repair intervals that apply to GTE services, will apply to the above unbundled Loop.
- 5.1.7 All Loop facilities furnished by GTE on the premises of GST's end users and up to the network interface or functional equivalent are the property of GTE. GTE must have access to all such facilities for network management purposes. GTE employees and agents may enter said premises at any reasonable hour to test and inspect such facilities in connection with such purposes or, upon termination or cancellation of the Loop facility, to remove such facility.
- 5.1.8 When an unbundled loop leased by GST from GTE, requires conditioning (upgrading) due to a customer's request to provide ISDN or service other than voice grade service, GTE will test the loop after conditioning and will provide it the results of those tests to GST. When GST provides its own switching, it will test unbundled loops. If there is a maintenance problem on an unbundled loop, GST will report the problem to GTE and GTE will be responsible for the repair of the loop. To the extent that GTE tests the loop and records the test results, GTE will proactively provide the test results to GST.
- 5.1.9 GTE agrees that in any circumstance where GTE would perform loop testing procedures and would record the results of those loop tests on a loop provided to GST by GTE as part of a resale service, GTE will proactively provide the results of this testing procedure to MCI.
- 5.1.10 In maintenance and repair cases, if loop tests are taken, GTE will provide any recorded readings to GST at the time the trouble ticket is closed in the same manner as GTE provides to itself and its end users.
- 5.1.11 GST may order a copper twisted pair Loop even in instances where the Loop for services that GTE offers is other than a copper facility, where such facilities exist.
- 5.1.12 Unbundled Loop Facility Certification. Before deploying any service enhancing copper cable technology (e.g., HDSL, ISDN, etc.) over unbundled 2-wire analog voice grade loops provided by GTE, GST shall notify GTE of such intentions to enable GTE to assess the loop transport facilities to determine whether there are any existing copper cable loop transport technologies (e.g., analog carrier, etc.) deployed within the same cable sheath that would be interfered with if GST deployed the proposed service enhancing copper cable technology. If there are existing copper cable loop transport technologies already deployed within the same cable sheath, or if GTE already has specific planned projects to deploy copper cable loop transport technologies within the next six months for which it can demonstrate a specific commitment by producing detailed engineering plans,

GTE will so inform GST within two (2) business days and GST shall not be permitted to deploy such service enhancing copper cable technologies.

- 5.1.12.1 If GST fails to notify GTE of its plans to deploy service enhancing copper cable technology and obtain prior certification from GTE of the facilities, and if GST's deployment of such technology is determined to have caused interference with existing or planned copper cable loop transport technologies deployed by GTE in the same cable sheath, GST will immediately remove such service enhancing copper cable technology and shall reimburse GTE for all incurred expense related to this interference.
- 5.1.12.2 Prior to GTE deploying service enhancing copper cable technology, as described above, GTE will validate, through a search of its facility assignment records, that GST has not deployed technologies within the same cable sheath that would be interfered with those planned by GTE. Should such incompatibility exist, GTE will not deploy such technology that would interfere with those already deployed by GST.
- 5.1.12.3 Should GTE deploy service enhancing copper technology which is determined to interfere with technology previously deployed by GST and GST can demonstrate that it had complied with GTE's Unbundled Loop Facility Certification procedure, GTE will remove their technology from the cable sheath, and reimburse GST for all incurred expenses related to this interference.
- 5.1.12.4 Unbundled Loop Facility Reservation. GTE and GST may each reserve for up to six (6) months the right to deploy within GTE's network copper cable loop transport technology for specific projects for which a Party can demonstrate a specific commitment by producing detailed engineering plans.
- 5.1.12.5 Requirements. Specific Loops as described in Sections 5.1.2 through 5.1.5 are capable of transmitting signals for the following services as needed by GST to provide end-to-end service capability to its end-user customer):
 - 1. 2-wire voice grade basic telephone services
 - 2. 2-wire ISDN
 - 3. 2-wire CentraNet
 - 4. 2 and 4-wire PBX lines or trunks
 - 5. 2 and 4-wire voice-grade private lines and foreign exchange lines
 - 6. 4-wire digital data (2.4kps through 64Kbps and n times 64Kbps) (where n<24)
 - 7. 4-wire DS1 (switched or private line)

- 5.2 If GTE uses Integrated Digital Loop Carrier (DLCs) systems to provide the local loop, GTE will make alternate arrangements, equal in quality, to permit GST to order a contiguous unbundled local loop at no additional cost to GST. These arrangements may, at GTE's option, include the following: provide GST with copper facilities or universal DLC that are acceptable to GST, deploy Virtual Remote Terminals, allow GST to purchase the entire Integrated DLC, or convert integrated DLCs to non-integrated systems.
- 5.3 Sub-Loop Components. GST may purchase on an unbundled basis the following: Loop, NID, and Distribution. GST may use the Bona Fide Request Process in Article III, to request unbundling of Loop Concentrator/Multiplexer and Loop Feeder. If a loop concentrator/multiplexer is offered on a shared use basis and there exists the problem of not having a spare DS-1 link when in the protected mode, until such time as the problem of protected mode operation is resolved, shared use of unbundled multiplexer/concentrator shall not be required.
 - 5.3.1 Upon bona fide request from GST, GTE agrees to provide access to the sub-loop Network Elements, at the Feeder Distribution Interface ("FDI"), based on the following conditions:
 - 5.3.1.1 GST agrees to pay GTE to expand or replace the FDI (over and above the established price of the basic Loop) to accommodate terminating the new GST cable.
 - 5.3.1.2 GST shall be responsible for the TSLRIC costs (if any) required to create an interface at the main distribution frame if such interface does not already exist.
 - 5.3.1.3 If implementation of sub-loop unbundling supports shared use of required unbundled facilities, then the TSLRIC cost of such facilities shall be allocated among the users, including GTE. If implementation supports only GST's use of the facilities, then GST shall pay the TSLRIC cost.
 - 5.3.1.4 GST agrees to pay GTE an agreed upon charge to perform all cross-connects within the GTE FDI (in addition to the price of the basic sub-loop Network Element(s) leased by GST).
 - 5.3.1.5 GST agrees that since all cross connects will be performed by GTE personnel, GST personnel will not require access to the FDI.
 - 5.3.1.6 Technical interface specifications, maintenance and administration issues will be resolved to the mutual satisfaction of GTE and GST, and, if the Parties cannot agree, GTE will provide access to the sub-loop Network Elements using existing GTE interface specifications, maintenance and administration policies. GTE is not responsible for the end-to-end

performance of the entire loop when GTE does not provide all of the loop components.

- 5.3.2 Loop Concentrator/Multiplexer
 - 5.3.2.1 Definition: 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. 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.
- 5.3.3 Technical Requirements. In most instances, the Loop Concentrator/Multiplexer shall be capable of performing its functions on the signals for the following services, including, but not limited to:
 - 5.3.3.1 two-wire & four-wire analog voice-grade loops;
 - 5.3.3.2 two-wire & four-wire loops that are conditioned to transmit the digital signals needed to provide services such as ISDN, ADSL, HDSL, and DS1-level signals.
 - 5.3.3.3 4-wire digital data (2.4Kbps through 64Kbps and n times 64Kbps, (where n < 24));
 - 5.3.3.4 DS3 rate private lines;
 - 5.3.3.5 Optical SONET rate private lines;
- 5.3.4 The Loop Concentrator/Multiplexer shall perform the following functions as appropriate:
 - 5.3.4.1 Analog to digital signal conversion of both incoming and outgoing (upstream and downstream) analog signals;
 - 5.3.4.2 Multiplexing of the individual digital signals up to higher transmission bit rate signals (e.g., DS0 and DS1 and, where available, DS3,

and optical SONET) for transport to the GTE central office through the Loop Feeder; and

- 5.3.4.3 Concentration of end-user subscriber signals onto fewer channels of a Loop Feeder (The concentration ratio provided for the Network Elements requested by GST shall be no higher than the Loop Concentrator/Multiplexer concentration ratio GTE uses to provide service to its own customers).
- 5.3.5 GTE shall provide power for the Loop Concentrator/Multiplexer through a non-interruptible source if the function is performed in a Central Office, or from a commercial AC power source with battery backup if the equipment is located outside a Central Office.
- 5.3.6 The Loop Concentrator/Multiplexer shall be provided to GST in accordance with the following Technical References:
 - 5.3.6.1 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993.
 - 5.3.6.2 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.
 - 5.3.6.3 ANSI T1.106 1988, American National Standard for Telecommunications Digital Hierarchy Optical Interface Specifications (Single Mode).
 - 5.3.6.4 ANSI T1.105-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET) Basic Description including Multiplex Structure, Rates and Formats.
 - 5.3.6.5 ANSI T1.102-1993, American National Standard for Telecommunications Digital Hierarchy Electrical Interfaces.
 - 5.3.6.6 ANSI T1.403-1989, American National Standard for Telecommunications Carrier to Subscriber Installation, DS1 Metallic Interface Specification.
 - 5.3.6.7 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria.
 - 5.3.6.8 Bellcore TR-TSY-000008, Digital Interface Between the SLC 96 Digital Loop Carrier System and a Local Digital Switch, Issue 2, August 1987.

- 5.3.6.9 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.
- 5.3.6.10 Bellcore TR-TSY-000673, Operations Systems Interface for an IDLC System, (LSSGR) FSD 20-02-2100, Issue 1, September 1989.
- 5.3.6.11 Bellcore Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, GR-303-CORE, Issue 1, September 1995.
- 5.4 Requirements for an Intelligent Loop Concentrator/Multiplexer.
 - 5.4.1 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.
 - 5.4.2 The underlying equipment that provides such IC/M function shall continuously monitor protected circuit packs and redundant common equipment.
 - 5.4.3 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.
 - 5.4.4 The underlying equipment that provides such IC/M function shall be equipped with a redundant power supply or a battery back-up.
 - 5.4.5 At GST's option, GTE shall provide GST with real time performance monitoring and alarm data on IC/M elements that may affect GST's traffic. This includes IC/M hardware alarm data and facility alarm data on the underlying device that provides such IC/M function. Until real time monitoring is available via electronic bonding, GTE agrees to provide an interim solution acceptable to GST.
 - 5.4.6 At GST's option, GTE shall provide GST 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. Until real time monitoring is available via electronic bonding, GTE agrees to provide an interim solution acceptable to GST.

5.5 Interface Requirements

5.5.1 The Loop Concentrator/Multiplexer shall meet the following interface requirements, as appropriate for the configuration that GST designates:

- 5.5.2 The Loop Concentrator/Multiplexer shall provide an analog voice frequency copper twisted pair interface at the serving Wire Center, as described in the references in Section 5.3.10.
- 5.5.3 The Loop Concentrator/Multiplexer shall provide digital 4-wire electrical interfaces at the serving Wire Center, as described in the references in Section 5.3.
- 5.5.4 Intelligent Loop Concentrator/Multiplexers shall be capable of providing optical SONET interfaces at rates of OC-3, OC-12, OC-48, and OC-N, N as described in the references in Section 5.3.10.
- 5.5.5 Intelligent Loop Concentrator/Multiplexers shall be capable of providing the Bellcore TR-303 DS1 level interface consistent with the manufacturer's implementation of the interface. Where technically feasible, Loop Concentrator/Multiplexer shall provide Bellcore TR-08 modes 1&2 DS1 interfaces when designated by GST. Such interface requirements are specified in the references in Section 5.3.10.
- 5.5.6 The Intelligent Loop Concentrator/Multiplexer shall be provided to GST in accordance with the Technical References set forth in Sections 5.3.10.8 through 5.3.10.11 above.

5.6 Loop Feeder

- 5.6.1 Definition: The Loop Feeder is the Network Element that provides connectivity between (1) a Feeder Distribution Interface (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.
- 5.6.2 The physical medium of the Loop Feeder may be copper twisted pair, or single or multi-mode fiber or other technologies as available. In certain cases, GST will require a copper twisted pair loop even in instances where the medium of the Loop Feeder for services that GTE offers is other than a copper facility.
- 5.6.3 Requirements for Loop Feeder
 - 5.6.3.1 The Loop Feeder shall be capable of transmitting analog voice frequency, basic rate ISDN, digital data, or analog radio frequency signals as appropriate.
 - 5.6.3.2 GTE shall provide appropriate power for all active elements in the Loop Feeder. GTE will provide appropriate power from a central office source, or from a commercial AC source with rectifiers for AC to DC

conversion and 8-hour battery back-up when the equipment is located in an outside plant Remote Terminal ("RT").

- 5.6.4 Additional Requirements for Special Copper Loop Feeder Medium. In addition to requirements set forth in this Section, GST may require GTE to provide copper twisted pair Loop Feeder which is unfettered by any intervening equipment (e.g., filters, load coils, and range extenders), so that GST can use these Loop Feeders for a variety of services by attaching appropriate terminal equipment at the ends.
- 5.6.5 Additional Technical Requirements for DS1 Conditioned Loop Feeder. In addition to the requirements set forth in this Section, GST 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 5.6.6.1. In the event existing facilities do not support the request, such conditioning shall be treated pursuant to Section 5.1.3 of this Article.
- 5.6.6 Additional Technical Requirements for Optical Loop Feeder. In addition to the requirements set forth in this Section, GST may designate that Loop Feeder will transport DS3 and OCn (where n is defined in the technical reference in this Section), where available. The requirements for such transport are defined in the references below in Section 5.6.6.1. In the event existing facilities do not support the request, such conditioning shall be treated pursuant to Section 5.1.3 of this Article.
 - 5.6.6.1 GTE shall offer Loop Feeder in accordance with the requirements set forth in the following Technical References:
 - 5.6.6.1.1 Bellcore Technical Requirement TR-NWT-000499, Issue 5, December 1993, section 7 for DS1 interfaces.
 - 5.6.6.1.2 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993.
 - 5.6.6.1.3 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.
 - 5.6.6.1.4 ANSI T1.106-1988, American National Standard for Telecommunications Digital Hierarchy Optical Interface Specifications (Single Mode).
 - 5.6.6.1.5 ANSI T1.105-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET) Basic Description including Multiplex Structure, Rates and Formats.

- 5.6.6.1.6 ANSI T1.102-1993, American National Standard for Telecommunications Digital Hierarchy Electrical Interfaces.
- 5.6.6.1.7 ANSI T1.403-1989, American National Standard for Telecommunications Carrier to Subscriber Installation, DS1 Metallic Interface Specification.
- 5.6.6.1.8 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria.
- 5.6.6.2 Interface Requirements.
 - 5.6.6.2.1 The Loop Feeder point of termination (POT) within a GTE central office will be as follows:
 - 5.6.6.2.1.1 Copper twisted pairs shall terminate on the MDF;
 - 5.6.6.2.1.2 DS1 Loop Feeder shall terminate on a DSX1, DCS1/0 or DCS3/1; and
 - 5.6.6.2.1.3 Fiber Optic cable shall terminate on a LGX.
 - 5.6.6.2.2 Loop Feeder shall be equal to or better than each of the applicable interface requirements set forth in the following technical references:
 - 5.6.6.2.2.1 Bellcore TR-TSY-000008, Digital Interface Between the SLC 96 Digital Loop Carrier System and a Local Digital Switch, Issue 2. August 1987.
 - 5.6.6.2.2.2 Bellcore TR-NWT-000303, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, Issue 2, December 19921- Rev. 1, December 1993-1 Supplement 1, December 1993.
 - 5.6.6.2.2.3 Bellcore Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, GR-303-CORE, Issue 1, September 1995.

6. Distribution

6.1 Definition:

- 6.1.1 Distribution provides connectivity between the NID component of Loop Distribution and the terminal block on the subscriber-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. The feeder-distribution interface (FDI) in the interfaced design makes use of a manual cross-connection, typically housed inside an outside plant device ("green box") or in a yault or manhole.
- 6.1.2 The Distribution may be copper twisted pair, coax cable, single or multimode fiber optic cable or other technologies. A combination that includes two or more of these media is also possible. In certain cases, GST shall require a copper twisted pair Distribution even in instances where the Distribution for services that GTE offers is other than a copper facility, where such facilities exist.

6.2 Requirements for All Distribution

- 6.2.1 Distribution shall be capable of transmitting signals for the following services (as requested by GST):
 - 6.2.1.1 Two-wire & four-wire analog voice-grade loops;
 - 6.2.1.2 Two-wire & four-wire loops that are conditioned to transmit the digital signals needed to provide services such as ISDN, ADSL, HDSL, and DS1-level signals.
- 6.2.2 Distribution shall transmit all signaling messages or tones. Where the Distribution includes any active elements that terminate any of the signaling messages or tones, these messages or tones shall be reproduced by the Distribution at the interfaces to an adjacent Network Element in a format that maintains the integrity of the signaling messages or tones.
- 6.2.3 Distribution shall support functions associated with provisioning, maintenance and testing of the Distribution itself, as well as provide necessary access to provisioning, maintenance and testing functions for Network Elements to which it is associated.
- 6.2.4 Where available, Distribution shall provide performance monitoring of the Distribution itself, as well as provide necessary access for performance monitoring for Network Elements to which it is associated.
- 6.2.5 Distribution shall be equal to or better than all of the applicable requirements set forth in the following technical references:

- 6.2.5.1 Bellcore TR-TSY-000057, "Functional Criteria for Digital Loop Carrier Systems", and,
- 6.2.5.2 Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines."
- 6.2.5.3 GTE shall provide to GST distribution using existing facilities. To the extent GTE needs to use temporary facilities to provide service to an GST subscriber, it shall use its best faith efforts to discontinue use of such facilities at the earliest possible date.
- 6.2.6 GTE shall offer Distribution together with, and separately from the NID component of Loop Distribution.
- 6.3 Additional Requirements for Special Copper Distribution

In addition to Distribution that supports the requirements in Section 6.2. (above), where copper twisted pair is available GST may designate Distribution to be copper twisted pair which is unfettered by any intervening equipment (e.g., filters, load coils, range extenders) so that GST can use these loops for a variety of services by attaching appropriate terminal equipment at the ends.

6.4 Additional Requirements for Fiber Distribution

Fiber optic cable Distribution shall be capable of transmitting signals for the following services in addition to the ones under Section 6.2.1 above:

- 6.4.1 DS3 rate private line service;
- 6.4.2 Optical SONET OC-N rate private lines (where N is defined in the technical reference in this Section 6; and
- 6.4.3 Analog Radio Frequency based services (e.g., Cable Television (CATV)).
- 6.5 Additional Requirements for Coaxial Cable Distribution

Coaxial Cable ("coax") Distribution shall be capable of transmitting signals for the following services in addition to the ones under Section 6.2.1 above:

- 6.5.1 Broadband data, either one way or bi-directional, symmetric or asymmetric, at rates between 1.5 Mb/s and 45 Mb/s; and
- 6.5.2 Analog Radio Frequency based services (e.g., CATV).

6.6 Interface Requirements

- 6.6.1 Signal transfers between the Distribution and the NID shall have levels of degradation that are within the performance requirements set forth in Section 19 of this Article VI.
- 6.6.2 The performance of distribution shall be equal to or better than each of the applicable interface requirements set forth in the following technical references:
 - 6.6.2.1 Bellcore TR-NWT-000049, "Generic Requirements for Outdoor Telephone Network Interface Devices," Issued December 1,1994;
 - 6.6.2.2 Bellcore TR-NWT-000057, "Functional Criteria for Digital Loop Carrier Systems," Issued January 2, 1993;
 - 6.6.2.3 Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines";
 - 6.6.2.4 Bellcore TR-NWT-000253, SONET Transport Systems: Common Criteria (A module of TSGR, FR-NWT-000440), Issue 2, December 1991

7. Local Switching

7.1 Definition:

7.1.1 Local Switching is the Network Element that provides the functionality required to connect the appropriate lines or trunks wired to the Main Distributing Frame ("MDF") or Digital Cross Connect ("DSX") panel to a desired line or trunk. The desired connection path for each call type will vary by subscriber and will be specified by GST as a routing scenario that will be implemented in advance as part of or after the purchases of the unbundled Local Switching. Such functionality shall include all of the features, functions, and capabilities that the underlying GTE switch that is providing such Local Switching function is capable of providing, including, but not limited to: line signaling and signaling software, digit reception, dialed number translations, call screening, routing, recording, call supervision, dial tone, switching, telephone number provisioning, announcements, calling features and capabilities (including call processing), CentraNet, or CentraNet-like services, Automatic Call Distributor ("ACD"), Carrier presubscription (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. Local Switching shall also be capable of routing local, intraLATA, interLATA, and international calls to the subscriber's preferred carrier, including call features (e.g., call forwarding) and CentraNet capabilities.

- 7.1.2 Local Switching, including the ability to route to GST'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).
- 7.2 GTE shall provide GST unbundled access to all technically feasible facilities, functions, features and capabilities of its local switches.
 - 7.2.1 If no modification to a GTE switch is required to provide the facility, function, feature or capability, GTE shall implement the proposed feature within forty-five (45) days. In any case where GTE will not be able to implement the proposed feature within forty-five (45) days, GTE shall promptly so advise GST and shall provide a revised implementation date. As used in this section 7.2, "modification" shall not include a facility, function, feature or capability resident in a GTE switch which only requires activation. This Section 7.2.1 shall not apply to any currently active function, feature, facility or capability of a GTE switch.
 - 7.2.2 Within forty-five (45) days of any written request by GST for a facility, function, feature or capability of a GTE local switch that requires modification to the switch, GTE shall in writing advise GST of whether such modification is technically feasible. If determined technically feasible, GTE shall advise GST whether such modification must be developed or endorsed by a vendor, or is already available to GTE from the vendor. Where such modification is available to GTE from the vendor, GTE shall provide to GST the vendor response including the cost for such modification and schedule for implementation. If no vendor response is required to fulfill GST's request, GTE shall provide GST with its proposed cost and implementation date. In any case where it becomes apparent that GTE will not be able to provide the foregoing responses within forty-five (45) days of GST's request, GTE shall promptly so advise GST and the Parties shall agree to a revised response date. Upon approval by GST of the cost and schedule, GTE shall commence work upon and complete such modification by a date agreed to with GST.
 - 7.2.2.1 Where such modification must be developed or endorsed by a vendor, GTE shall promptly seek a vendor proposal (including any available options for expedited service and ownership or rights to use any resulting intellectual property) and, upon receipt, provide such vendor proposal to GST, along with an estimate of additional costs, if any, and a completion schedule. Where GTE is not able to provide a final vendor response within forty-five (45) days, GTE shall obtain from the vendor and

provide to GST a status report within such period. Upon GST's request, GTE shall provide an updated status of the vendor response.

7.2.2.2 Subject to any rights GST has granted to any other person or retained for itself or retained by the vendor, GST shall retain exclusive rights to the use of any modification to a GTE switch where GST has paid GTE for development of such modification; provided, however, upon GST's agreement, such right of GST shall become non-exclusive, and use of such modification shall not be withheld, upon reimbursement of GST as follows. If any person purchasing unbundled Network Elements from GTE desires to use a facility, function, feature or capability that has been added to a local switch using a modification for which GST has paid the development costs, then such person shall pay to GST a proportionate share of the development costs GST paid to GTE as described below. If one or more persons has already reimbursed GST for a portion of development costs, then subsequent persons desiring to use such facility, function, feature or capability shall reimburse GST and such prior users proportionally. As an example, if GST had paid \$100.00 in development costs, then a second user would reimburse GST \$50.00. A third user would reimburse GST and the second user a total of \$33.33 dollars, dividing such reimbursement equally between GST and the second user. A fourth user would reimburse GST and the other two users a total of \$25.00, dividing such reimbursement equally among them (with any subsequent users treated in a similar manner).

7.2.2.3 [Section 7.2.2.3 is Reserved]

- 7.2.3 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).
 - 7.2.3.1 GTE shall route calls to the appropriate trunk or lines for call origination or termination.
 - 7.2.3.2 GTE shall route calls on a per line or per screening class basis to (1) GTE platforms providing Network Elements or additional functionality, (2) GST designated platforms, or (3) third-party platforms (e.g., Operator Services, Directory Assistance).
 - 7.2.3.3 GTE shall provide recorded announcements as designated by GST and call progress tones to alert callers of call progress and disposition, where technically feasible.
 - 7.2.3.4 GTE shall change a subscriber from GTE to GST without loss of feature functionality, unless expressly agreed otherwise by GST.

- 7.2.3.5 GTE shall perform routine testing (e.g., Mechanized Loop Tests ("MLT") and test calls such as 105, 107 and 108 type calls) and fault isolation on a schedule agreed to by the Parties.
- 7.2.3.6 GTE shall repair and restore any equipment or any other maintainable component owned by or under the control of GTE that may adversely impact GST's use of unbundled Local Switching.
- 7.2.3.7 GTE shall control congestion points such as mass calling events, and network routing abnormalities, using capabilities such as Automatic Call Gapping, Automatic Congestion Control, and Network Routing Overflow. Application of such control shall be competitively neutral and not favor any user of unbundled switching or GTE.
- 7.2.3.8 GTE shall perform manual call trace as designated by GST and permit subscriber originated call trace, using procedures provided by GTE and in accord with Article XIII.
- 7.2.3.9 GTE shall record all billable events, involving usage of the element, and send the appropriate recording data to GST as outlined in Article VIII.
- 7.2.3.10 For 911 calls, GTE shall allow interconnection from GST local switching elements and GTE shall route the calls to the appropriate Public Safety Access Point ("PSAP").
- 7.2.3.11 Where GTE provides the following special services, it shall provide to GST:
 - 7.2.3.11.1 Essential Service Lines;
 - 7.2.3.11.2 Telephone Service Prioritization;
 - 7.2.3.11.3 Telephone Relay Services for handicapped;
 - 7.2.3.11.4 Soft dial tone where required by law. Where GTE provides soft dial tone, it shall do so on a competitively-neutral basis.
 - 7.2.3.11.5 Any other service required by law or regulation.
- 7.2.3.12 GTE shall provide Switching Service Point ("SSP") capabilities and signaling software to interconnect the signaling links destined to the Signaling Transfer Point Switch ("STPs"). In the event that Local

Switching is provided out of a switch without SS7 capability, the Tandem shall provide this capability as discussed in the section on Tandem Switching. These capabilities shall adhere to Bellcore specifications TCAP (GR-1432-CORE), ISUP (GR-905-CORE), Call Management (GR-1429-CORE), Switched Fractional DS1 (GR-1357-CORE), Toll Free Service (GR-1428-CORE), Calling Name (GR-1597-CORE), Line Information Database (GR-954-CORE), and Advanced Intelligent Network (GR-2863-CORE).

- 7.2.3.13 Where technically feasible, GTE shall provide interfaces to adjuncts through industry standard and Bellcore interfaces. These adjuncts can include, but are not limited to, Service Node, Service Circuit Node, Voice Mail and Automatic Call Distributors. Examples of existing interfaces are ANSI ISDN standards Q.931 and Q.932.
- 7.2.3.14 GTE shall provide performance data regarding a subscriber line, traffic characteristics or other measurable elements to GST, upon GST's request where available.
- 7.2.3.15 GTE shall offer all Local Switching features that are technically feasible and provide feature offerings at parity to those provided by GTE to itself or any other party. Such feature offerings shall include, but are not limited to:
 - 7.2.3.15.1 Basic and primary rate ISDN;
 - 7.2.3.15.2 Residential features;
 - 7.2.3.15.3 Custom Local Area Signaling Services (CLASS/LASS);
 - 7.2.3.15.4 Custom Calling Features;
 - 7.2.3.15.5 CentraNet (including equivalent administrative capabilities, such as subscriber accessible reconfiguration and detailed message recording); and
 - 7.2.3.15.6 Advanced intelligent network triggers supporting GST, and GTE service applications, in GTE's SCPs. This would include the following list of AIN capabilities to the extent technically feasible and available to GTE for offering AIN-based services:
 - 7.2.3.15.6.1 Off-Hook Immediate;
 - 7.2.3.15.6.2 Off-Hook Delay;

- 7.2.3.15.6.3 Private EAMF Trunk;
- 7.2.3.15.6.4 Shared Interoffice Trunk (EAMF, SS7);
- 7.2.3.15.6.5 Termination Attempt;
- 7.2.3.15.6.6 3/6/10;
- 7.2.3.15.6.7 N11;
- 7.2.3.15.6.8 Feature Code Dialing;
- 7.2.3.15.6.9 Custom Dialing Plan(s);
- 7.2.3.15.6.10 Automatic Route Selection; and
- 7.2.3.15.6.11 Where such AIN functionality is not currently deployed, capabilities shall be provided pursuant to the BFR process contained in Article III of this Agreement.
- 7.2.3.16 GTE shall assign each GST subscriber line the class of service designated by GST (e.g., using line class codes) or other switch specific provisioning methods at GTE's option), and shall route calls from GST subscribers as directed by GST at GST's option. This includes each of the following call types:
 - 7.2.3.16.1 O+/O- calls (e.g. Operator Services)
 - 7.2.3.16.2 911 calls
 - 7.2.3.16.3 411/DA calls
 - 7.2.3.16.4 InterLATA calls specific to PIC
 - 7.2.3.16.5 IntraLATA calls specific to PIC
 - 7.2.3.16.6 800/888 calls, prior to database query, where technically feasible
 - 7.2.3.16.7 Call forwarding of any type supported on the switch, to a line or a trunk

- 7.2.3.16.8 Any other customized routing that may be supported by the GTE switch
- 7.2.3.17 If an GST subscriber subscribes to GST provided voice mail and messaging services, GTE shall redirect incoming calls to the GST system based upon presubscribed service arrangements (e.g., busy, don't answer, number of rings). In addition, GTE shall provide a Standard Message Desk Interface-Enhanced ("SMDI-E") interface, where available, to the GST system. GTE shall support the Inter-switch Voice Messaging Service ("IVMS") capability where available.
- 7.2.3.18 Local Switching shall be offered in accordance with the requirements of the following technical references and their future releases:
 - 7.2.3.18.1 GR-1298-CORE, AIN Switching System Generic Requirements;
 - 7.2.3.18.2 GR-1299-CORE, AIN Switch-Service Control Point ("SCP")/Adjunct Interface Generic Requirements;
 - 7.2.3.18.3 TR-NWT-001284, AIN 0.1 Switching System Generic Requirements;
 - 7.2.3.18.4 SR-NWT-002247, AIN Release 1 Update.

7.2.4 Interface Requirements:

- 7.2.4.1 GTE shall provide the following interfaces (i.e., ports) to loops, where available:
 - 7.2.4.1.1 Standard Tip/Ring interface including loopstart or groundstart, on-hook signaling (e.g., for calling number, calling name and message waiting lamp);
 - 7.2.4.1.2 Coin phone signaling;
 - 7.2.4.1.3 Basic Rate Interface ISDN adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;
 - 7.2.4.1.4 Two-wire analog interface to PBX to include reverse battery, E&M, wink start and DID;
 - 7.2.4.1.5 Four-wire analog interface to PBX to include reverse battery, E&M, wink start and DID;

- 7.2.4.1.6 Four-wire DS1 interface to PBX or subscriber provided equipment (e.g., computers and voice response systems);
- 7.2.4.1.7 Primary Rate ISDN to PBX adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;
- 7.2.4.1.8 Switched Fractional DS1 with capabilities to configure Nx64 channels (where N = 1 to 24); and
- 7.2.4.1.9 Loops adhering to Bellcore TR-NWT-08 and TR-NWT-303 specifications to interconnect Digital Loop Carriers.
- 7.2.4.2 GTE shall provide access, at a minimum, to the following:
 - 7.2.4.2.1 SS7 Signaling Network (where available) or Multi-Frequency trunking if requested by GST;
 - 7.2.4.2.2 Interface to GST operator services systems or Operator Services through appropriate trunk interconnections for the system;
 - 7.2.4.2.3 Interface to GST directory assistance services through the GST switched network or to Directory Services through the appropriate trunk interconnections for the system; and
 - 7.2.4.2.4 950 access or other GST required access to interexchange carriers as requested through appropriate trunk interfaces.
- 7.3 Integrated Services Digital Network (ISDN)
 - 7.3.1 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.
 - 7.3.2 Technical Requirements ISDN
 - 7.3.2.1 GTE shall offer Data Switching providing ISDN that, at a minimum:

- 7.3.2.1.1 Provides integrated Packet handling capabilities;
- 7.3.2.1.2 Allows for full 2B+D Channel functionality for BRI; and
- 7.3.2.1.3 Allows for full 23B+D Channel functionality for PRI.
- 7.3.2.1.4 Each B Channel shall allow for voice, 64 Kbps CSD, and PSD of 128 logical channels at minimum speeds of 19 Kbps throughput of each logical channel up to the total capacity of the B Channel.
- 7.3.2.1.5 Each B Channel shall provide capabilities for alternate voice and data on a per call basis.
- 7.3.2.1.6 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 Kbps throughput of each logical channel up to the total capacity of the D channel.
- 7.3.2.1.7 The PRI D Channel shall allow for call associated signaling.

7.3.3 Interface Requirements — ISDN

- 7.3.3.1 GTE shall provide the BRI U interface using 2-wire copper loops in accordance with TR-NWT-000393, January 1991, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.
- 7.3.3.2 GTE shall provide the BRI interface using Digital Subscriber Loops adhering to Bellcore TR-NWT-303 specifications to interconnect Digital Loop Carriers.
- 7.3.3.3 GTE shall offer PSD interfaces adhering to the X.25, X.75 and X.75' ANSI and Bellcore requirements.
- 7.3.3.4 GTE shall offer PSD trunk interfaces operating at 56 Kbps.

8. Common Transport

8.1 Definition:

Common Transport is an interoffice transmission path between GTE Network Elements (illustrated in Figure 2) shared by carriers. Where GTE Network Elements are connected by intra-office wiring, such wiring is provided as a part of the Network Elements and is not Common Transport. GTE shall offer Common Transport as of the Effective Date of

the Agreement, at DS0, DS1, DS3, STS-1 or higher transmission bit rate circuits. Common Transport consists of GTE inter-office transport facilities and is distinct and separate from local switching.



Figure 2

Figure 2 is illustrative only.

8.2 Technical Requirements

- 8.2.1 GTE shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities that are used to provide Common Transport.
- 8.2.2 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):
- 8.2.3 ANSI T1.101-1994, American National Standard for Telecommunications Synchronization Interface Standard Performance and Availability;
 - 8.2.3.1 ANSI T1.102-1993, American National Standard for Telecommunications Digital Hierarchy Electrical Interfaces;
 - 8.2.3.2 ANSI T1.102.01-199x, American National Standard for Telecommunications Digital Hierarchy VT1.5;
 - 8.2.3.3 ANSI T1.105-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET) Basic Description including Multiplex Structure, Rates and Formats;
 - 8.2.3.4 ANSI T1.105.01-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET) Automatic Protection Switching;

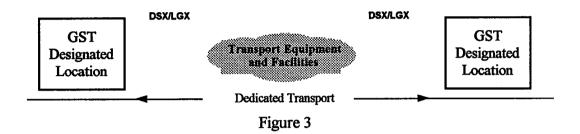
- 8.2.3.5 ANSI T1.105.02-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET) Payload Mappings;
- 8.2.3.6 ANSI T1.105.03-1994, American National Standard for Telecommunications Synchronous Optical Network (SONET) Jitter at Network Interfaces:
- 8.2.3.7 ANSI T1.105.03a-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET) Jitter at Network Interfaces DS1 Supplement;
- 8.2.3.8 ANSI T1.105.05-1994, American National Standard for Telecommunications Synchronous Optical Network (SONET) Tandem Connection;
- 8.2.3.9 ANSI T1.105.06-199x, American National Standard for Telecommunications Synchronous Optical Network (SONET) Physical Layer Specifications;
- 8.2.3.10 ANSI T1.105.07-199x, American National Standard for Telecommunications Synchronous Optical Network (SONET) Sub STS-1 Interface Rates and Formats;
- 8.2.3.11 ANSI T1.105.09-199x, American National Standard for Telecommunications Synchronous Optical Network (SONET) Network Element Timing and Synchronization;
- 8.2.3.12 ANSI T1.106-1988, American National Standard for Telecommunications Digital Hierarchy Optical Interface Specifications (Single Mode);
- 8.2.3.13 ANSI T1.107-1988, American National Standard for Telecommunications Digital Hierarchy Formats Specifications;
- 8.2.3.14 ANSI T1.107a-1990 American National Standard for Telecommunications Digital Hierarchy Supplement to Formats Specifications (DS3 Format Applications);
- 8.2.3.15 ANSI T1.107b-1991 American National Standard for Telecommunications Digital Hierarchy Supplement to Formats Specifications;

- 8.2.3.16 ANSI T1.117-1991, American National Standard for Telecommunications Digital Hierarchy Optical Interface Specifications (SONET) (Single Mode Short Reach);
- 8.2.3.17 ANSI T1.403-1989, Carrier to Subscriber Installation, DS1 Metallic Interface Specification;
- 8.2.3.18 ANSI T1.404-1994, Network-to-Subscriber Installation DS3 Metallic Interface Specification;
- 8.2.3.19 ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy ("SDH");
- 8.2.3.20 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;
- 8.2.3.21 Bellcore FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;
- 8.2.3.22 Bellcore GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;
- 8.2.3.23 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria;
- 8.2.3.24 Bellcore TR-NWT 000507, Transmission, Section 7, Issue 5 (Bellcore, December 1993). (A module of LSSGR, FR-NWT-000064.);
- 8.2.3.25 Bellcore TR-NWT-000776, Network Interface Description for ISDN Subscriber Access;
- 8.2.3.26 Bellcore TR-INS-000342, High-Capacity Digital Special Access Service-Transmission Parameter Limits and Interface Combinations, Issue 1 February 1991;
- 8.2.3.27 Bellcore ST-TEC-000052, Telecommunications Transmission Engineering Textbook, Volume 2: Facilities, Third Edition, Issue I May 1989;
- 8.2.3.28 Bellcore ST-TEC-000051, Telecommunications Transmission Engineering Textbook Volume 1: Principles, Third Edition. Issue 1 August 1987.

9. Dedicated Transport

9.1 Definition

9.1.1 Dedicated Transport is an interoffice transmission path between GST designated locations to which GST is granted exclusive use. Such locations may include GTE central offices or other locations, GST network components, other carrier network components, or subscriber premises. Dedicated Transport is depicted below in Figure 3.



- 9.1.2 GTE shall offer Dedicated Transport in each of the following manners:
 - 9.1.2.1 As capacity on a shared facility.
 - 9.1.2.2 As a circuit (e.g., DS1, DS3, STS-1) dedicated to GST.
 - 9.1.2.3 As a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to GST.
- 9.1.3 When Dedicated Transport is provided as a circuit or as capacity on a shared facility, it shall include (as appropriate):
 - 9.1.3.1 Multiplexing functionality;
 - 9.1.3.2 Grooming functionality; and,
 - 9.1.3.3 Redundant equipment and facilities necessary to support protection and restoration.
- 9.1.4 When Dedicated Transport is provided as a system it shall include:
 - 9.1.4.1 Transmission equipment such as multiplexers, line terminating equipment, amplifiers, and regenerators;
 - 9.1.4.2 Inter-office transmission facilities such as optical fiber, copper twisted pair, and coaxial cable;

- 9.1.4.3 Redundant equipment and facilities necessary to support protection and restoration; and,
- 9.1.4.4 Dedicated Transport includes the Digital Cross-Connect System ("DCS") functionality as an option. DCS is described below in Section 11.

9.2 Technical Requirements

This Section sets forth technical requirements for all Dedicated Transport.

- 9.2.1 When GTE provides Dedicated Transport as a circuit or a system, the entire designated transmission circuit or system (e.g., DS1, DS3, STS-1) shall be dedicated to GST designated traffic.
- 9.2.2 GTE shall offer Dedicated Transport using 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.
- 9.2.3 When requested by GST, 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.
- 9.2.4 When physical diversity is requested by GST, GTE shall provide the maximum feasible physical separation between transmission paths for all facilities and equipment (unless otherwise agreed by GST).
- 9.2.5 Upon GST's request and when technically feasible to isolate GST data, GTE shall provide Real Time and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, GST's traffic.
- 9.2.6 GTE shall offer the following interface transmission rates for Dedicated Transport, where available:
 - 9.2.6.1 DS1 (Extended SuperFrame ESF/B8ZS, D4, and unframed applications shall be provided);
 - 9.2.6.2 DS3 (C-bit Parity, M13, and unframed applications shall be provided);
 - 9.2.6.3 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 GST service node;
- 9.2.6.4 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.
- 9.2.7 GTE shall provide cross-office wiring up to a suitable Point of Termination ("POT") between Dedicated Transport and GST designated equipment. GTE shall provide the following equipment for the physical POT:
 - 9.2.7.1 DSX1 for DS1s or VT1.5s;
 - 9.2.7.2 DSX3 for DS3s or STS-1s; and
 - 9.2.7.3 LGX for optical signals (e.g., OC-3 and OC-12).
- 9.2.8 GTE shall provide physical access to the POT for personnel designated by GST (for testing, facility interconnection, and other purposes designated by GST) in accordance with the provisions of Article XIII.
- 9.2.9 For Dedicated Transport provided as a system, GTE shall design the system (including but not limited to facility routing and termination points) according to GST specifications.
- 9.2.10 Upon GST's request when technically feasible, GTE shall provide GST with electronic provisioning control of an GST specified Dedicated Transport.
- 9.2.11 GTE shall offer Dedicated Transport together with and separately from DCS.
- 9.3 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.
 - 9.3.1 All SONET Dedicated Transport provided as a system shall:
 - 9.3.1.1 Be synchronized from both a primary and secondary Stratum 1 level timing source.
 - 9.3.1.2 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.

- 9.3.1.3 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 GST and SONET network components connected to the Dedicated Transport. For example, if GST leases a dedicated SONET ring from GTE, that ring shall support DCC message routing between GST and SONET network components connected to the ring.
- 9.3.1.4 Support the following performance requirements for each circuit (STS-1, DS1, DS3, etc.):
 - 9.3.1.4.1 No more than 10 Errored Seconds Per Day (Errored Seconds are defined in the technical reference at Section 9.4.5); and
 - 9.3.1.4.2 No more than 1 Severely Errored Second Per Day (Severely Errored Seconds are defined in the technical reference at Section 9.4.5).

9.3.2 SONET rings shall:

- 9.3.2.1 Be provisioned on physically diverse fiber optic cables (including separate building entrances where available and diversely routed intraoffice wiring). "Diversely routed" shall be interpreted as the maximum feasible physical separation between transmission paths, unless otherwise agreed by GST.
- 9.3.2.2 Support dual ring interworking per SONET Standards.
- 9.3.2.3 Provide the necessary redundancy in optics, electronics, and transmission paths (including intra-office wiring) such that no single failure will cause a service interruption.
- 9.3.2.4 Provide the ability to disable ring protection switching at GST's direction (selective protection lock-out). This requirement applies to line switched rings only.
- 9.3.2.5 Provide the ability to use the protection channels to carry traffic (extra traffic). This requirement applies to line switched rings only.
- 9.3.2.6 Provide fifty (50) millisecond restoration unless a ring protection delay is set to accommodate dual ring interworking schemes.

- 9.3.2.7 Have settable ring protection switching thresholds that shall be set in accordance with GST's specifications.
- 9.3.2.8 Provide revertive protection switching with a settable wait to restore delay with a default setting of five (5) minutes. This requirement applies to line switched rings only.
- 9.3.2.9 Provide non-revertive protection switching. This requirement applies to path switched rings only.
- 9.3.2.10 Adhere to the following availability requirements, where availability is defined in the technical reference set forth in Section 10.4.5.
 - 9.3.2.10.1 No more than 0.25 minutes of unavailability month; and
 - 9.3.2.10.2 No more than 0.5 minutes of unavailability per year.
- 9.4 At a minimum, Dedicated Transport shall meet each of the requirements set forth in Section 8.2.3 and in the following technical references.
 - 9.4.1 ANSI T1.105.04-1995, American National Standard for Telecommunications Synchronous Optical Network ("SONET") Data Communication Channel Protocols and Architectures;
 - 9.4.2 ANSI T1.119-1994, American National Standard for Telecommunications Synchronous Optical Network ("SONET") Operations, Administration, Maintenance, and Provisioning ("OAM&P") Communications;
 - 9.4.3 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;
 - 9.4.4 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;
 - 9.4.5 ANSI T1.231-1993 American National Standard for Telecommunications Digital Hierarchy Layer 1 In-Service Digital Transmission Performance Monitoring.
- 10. <u>Signaling Link Transport</u>. SS7 signaling and transport used in support of provision of service by GST shall be in accordance with the following terms and conditions:

10.1 Signaling Link Transport - Definition:

Signaling Link Transport is a set of two or four dedicated 56 Kbps transmission paths between GST-designated Signaling Points of Interconnection ("SPOI") and a cross connect at a GTE STP site that provides appropriate physical diversity.

- 10.2 Technical Requirements
 - 10.2.1 Signaling Link Transport shall consist of full duplex mode 56 Kbps transmission paths.
 - 10.2.2 Of the various options available, Signaling Link Transport shall consist of the following two types:
 - 10.2.2.1 As an "A-link" which is a connection between a switch and a home Signaling Transfer Point Switch (STPs) pair; and
 - 10.2.2.2 As a "B-link or 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)).
 - 10.2.3 Signaling Link Transport shall consist of two or more signaling links per layer as follows:
 - 10.2.3.1 An A-link layer shall consist of two links.
 - 10.2.3.2 A B-link or D-link layer shall consist of four links.
 - 10.2.4 A signaling link layer shall satisfy a performance objective such that:
 - 10.2.4.1 There shall be no more than two minutes down time per year for an A-link layer, and
 - 10.2.4.2 There shall be negligible (less than 2 seconds) down time per year for a B-link or D-link layer.
 - 10.2.5 A signaling link layer shall satisfy interoffice and intraoffice diversity of facilities and equipment, such that:
 - 10.2.5.1 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

10.2.5.2 No two concurrent failures of facilities or equipment shall cause the failure of all four links in a B-link or D-link layer (i.e., the links should be provided on a minimum of three separate physical paths end-to-end).

10.3 Interface Requirements

10.3.1 Upon request, GTE shall provide interface to signaling link transmission paths at either DS0 (56 Kbps) or DS1 (1.544 Mbps) rates.

11. Signal Transfer Points (STPs)

11.1 STP - Definition:

STPs provide functionality that enable the exchange of SS7 messages among and between switching elements, database elements and signaling transfer points. Connections to STPs shall be charged on a per-port basis in accordance with Appendix C of this Agreement. Figure 4 depicts STPs within a signaling network.

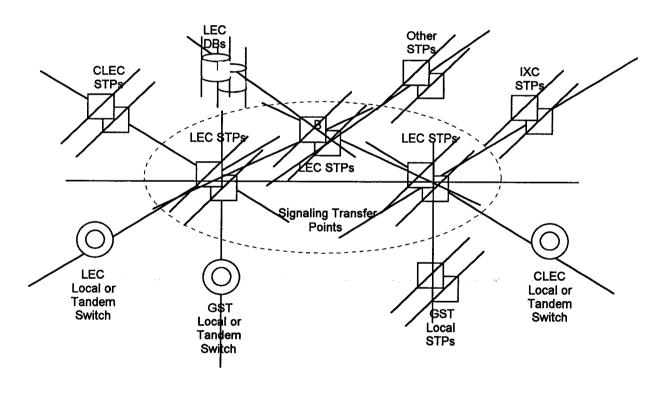


Figure 4

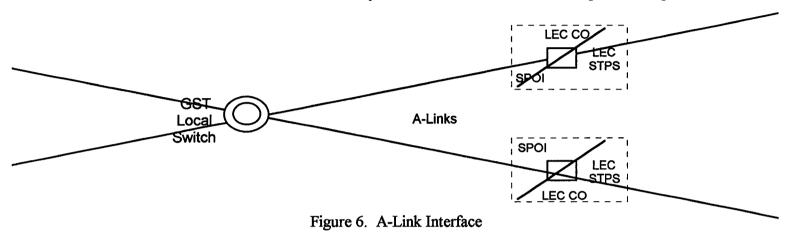
11.2 Technical Requirements

11.2.1 STPs shall provide access to all other Network Elements connected to those STPs on the GTE SS7 network. These include:

- 11.2.1.1 GTE Local Switching or Tandem Switching;
- 11.2.1.2 GTE Service Control Points/DataBases;
- 11.2.1.3 Third-party local or tandem switching systems connected to the GTE SS7 network; and
- 11.2.1.4 Third-party-provided STPs connected to the GTE SS7 network.
- 11.2.2 The connectivity provided by STPs shall fully support the functions of all other Network Elements connected to those STPs on GTE's SS7 network. This explicitly includes the use of GTE's SS7 network to convey messages which neither originate nor terminate at a signaling end point directly connected to the GTE SS7 network (i.e., transit messages). When the GTE SS7 network is used to convey transit 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.
- 11.2.3 If a GTE tandem switch routes calling traffic, based on dialed or translated digits, on SS7 trunks between an GST local switch and third party local switch, GTE's 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 GST local STPs and the STPs that provide connectivity with the third party local switch, even if the third party local switch is not directly connected to GTE's STPs, provided that the third party's STPs and the GST local STPs are both connected to the GTE STPs to which the GST local switch is connected.
- 11.2.4 STPs shall provide all functions of the Message Transfer Part ("MTP") as specified in ANSI T1.111. This includes:
 - 11.2.4.1 Signaling Data Link functions, as specified in ANSI T1.111.2;
 - 11.2.4.2 Signaling Link functions, as specified in ANSI T1.111.3; and
 - 11.2.4.3 Signaling Network Management functions, as specified in ANSI T1.111.4.
- 11.2.5 STPs shall provide all functions of the Signaling Connection Control Part ("SCCP") necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112. In particular, this includes Global Title Translation ("GTT") and SCCP Management procedures, as specified in T1.112.4.

- 11.2.6 In cases where the destination signaling point is a GTE local or tandem switching system or data base, or is an GST or third party local or tandem switching system directly connected to GTE's SS7 network, GTE 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 STPs in an SS7 network connected with the GTE SS7 network, and shall not perform SCCP Subsystem Management of the destination.
- 11.2.7 STPs shall also provide the capability to route SCCP messages based on ISNI, as specified in ANSI T1.118, when this capability becomes available on GTE STPs.
- 11.2.8 STPs shall provide functions of the Operations and Maintenance Application Part ("OMAP") commonly provided by STPs (as specified in ANSI T1.116) where this capability exists on GTE STPs. This includes:
 - 11.2.8.1 MTP Routing Verification Test ("MRVT"); and,
 - 11.2.8.2 SCCP Routing Verification Test ("SRVT").
- 11.2.9 In cases where the destination signaling point is a GTE local or tandem switching system or DB, or is an GST or third party local or tandem switching system directly connected to the GTE SS7 network, STPs shall perform MRVT and SRVT to the destination signaling point. In all other cases, STPs shall perform MRVT and SRVT to a gateway pair of STPs in an SS7 network connected with the GTE SS7 network. This requirement shall be superseded by the specifications for Internetwork MRVT and SRVT if and when these become approved ANSI standards and available capabilities of GTE STPs.
- 11.2.10 Performance of STPs shall be equal to or better than the following performance requirements:
 - 11.2.10.1 MTP Performance, as specified in ANSI T1.111.6; and
 - 11.2.10.2 SCCP Performance, as specified in ANSI T1.112.5.
- 11.3 Interface Requirements
 - 11.3.1 GTE shall provide the following STPs options to connect GST or GST-designated local switching systems or STPs to the GTE SS7 network:
 - 11.3.1.1 An A-link interface from GST local switching systems; and,

- 11.3.1.2 A B-link or D-link interface from GST local STPs.
- 11.3.2 Each type of interface shall be provided by one or more sets (layers) of signaling links, as follows:
 - 11.3.2.1 An A-link layer shall consist of two links, as depicted in Figure 6.



- 11.3.3 The Signaling point of Interconnection ("SPOI") for each link shall be located at a cross-connect element, such as a DSX-1, in the Central Office ("CO") where the GTE STP is located. There shall be a DSI or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface. GTE shall offer higher rate DS1 signaling for interconnecting GST local switching systems or STPs with GTE STPs as soon as these become approved ANSI standards and available capabilities of GTE STPs.
- 11.3.4 GTE shall provide MTP and SCCP protocol interfaces that shall conform to all sections relevant to the MTP or SCCP in the following specifications:
 - 11.3.4.1 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"); and
 - 11.3.4.2 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

11.4 Message Screening

11.4.1 GTE shall set message screening parameters so as to accept messages from GST local or tandem switching systems destined to any signaling point in the GTE SS7 network, within which the GST switching system is connected and has a legitimate signaling relationship.

- 11.4.2 GTE shall set message screening parameters so as to accept messages from GST local or tandem switching systems destined to any signaling point or network interconnected to the GTE SS7 network, within which the GST switching system is connected and has a legitimate signaling relationship.
- 11.4.3 GTE shall set message screening parameters so as to accept messages destined to an GST local or tandem switching system from any signaling point or network interconnected to those STPs in the GTE SS7 network with which the GST switching system is connected and has a legitimate signaling relation.
- 11.4.4 GTE shall set message screening parameters so as to accept and send messages destined to an GST SCP database from any signaling point or network interconnected to those STPs in the GTE SS7 network with which the GST SCP database is connected and has a legitimate signaling relation.

11.5 STP Requirements

- 11.5.1 The performance of STPs shall be equal to or better than all of the requirements for STPs set forth in the following technical references:
- 11.5.2 ANSI T1.111-1992 American National Standard for Telecommunications Signaling System Number 7 (SS7) Message Transfer Part (MTP);
- 11.5.3 ANSI T1.111A-1994 American National Standard for Telecommunications Signaling System Number 7 (SS7) Message Transfer Part (MTP) Supplement;
- 11.5.4 ANSI T1.112-1992 American National, Standard for Telecommunications Signaling System Number 7 (SS7) Signaling Connection Control Part (SCCP);
- 11.5.5 ANSI T1.115-1990 American National Standard for Telecommunications Signaling System Number 7 (SS7) Monitoring and Measurements for Networks;
- 11.5.6 ANSI T1.116-1990 American National Standard for Telecommunications Signaling System Number 7 (SS7) Operations, Maintenance and Administration Part (OMAP);
- 11.5.7 ANSI T1.118-1992 American National Standard for Telecommunications Signaling System Number 7 (SS7) Intermediate Signaling Network Identification (ISNI);
- 11.5.8 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

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

12. Service Control Points Databases

12.1 SCP Database - Definition:

- 12.1.1 SCP 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. SCP Databases include, but are not limited to: Number Portability, LIDB, and Toll Free Number Databases. The Parties may apply a perport connection charge for each STP port used to access SCP databases.
- 12.1.2 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 subscriber record data that provides information necessary to route 800 calls).

12.2 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 GST in accordance with the following requirements, except where such a requirement is superseded by specific requirements set forth in Subsections 12.4 through 12.6:

- 12.2.1 GTE shall provide physical interconnection to SCPs through the appropriate SS7 STPs, network and protocols, as specified in Section 11 of this Article, with TCAP as the application layer protocol.
- 12.2.2 GTE shall provide physical interconnection to databases via industry standard interfaces and protocols.
- 12.2.3 The reliability of interconnection options shall be consistent with requirements for diversity and survivability as specified in Section 11 of this Attachment (which applies to both SS7 and non-SS7 interfaces).
- 12.2.4 GTE shall have as a design criterion so that database functionality shall be unavailable a maximum of thirty (30) minutes per year.

- 12.2.5 GTE shall provide Database provisioning consistent with the provisioning requirements of this Agreement (e.g., data required, edits, acknowledgments, data format and transmission medium and notification of order completion).
- 12.2.6 The operational interface provided by GTE shall complete Database transactions (i.e., add, modify, delete) for GST subscriber records stored in GTE databases within twenty-four (24) hours, or sooner where GTE provisions its own subscriber records within a shorter interval.
- 12.2.7 GTE shall provide Database maintenance consistent with the maintenance requirements as specified in this Agreement (e.g., notification of GTE Network Affecting Events, testing, dispatch schedule and measurement and exception reports).
- 12.2.8 GTE shall provide billing and recording information to track database usage consistent with connectivity billing and recording requirements as specified in this Agreement (e.g., recorded message format and content, timeliness of feed, data format and transmission medium).
- 12.2.9 GTE shall provide SCPs/Databases in accordance with the physical security requirements specified in this Agreement.
- 12.2.10 GTE shall provide SCPs/Databases in accordance with the logical security requirements specified in this Agreement.
- 12.3 [Subsection 12.3 is Reserved]
- 12.4 Line Information Database ("LIDB")

This Subsection 12.4 defines and sets forth additional requirements for the Line Information Database. This Subsection 12.4 supplements the requirements of Subsection 12.2 and 12.6. Charges for use of GTE's LIDB will be on a per-query response basis.

12.4.1 Definition:

The Line Information Database (LIDB) is a transaction-oriented database accessible through Common Channel Signaling (CCS) networks. It contains records associated with subscriber Line Numbers and Special Billing Numbers (in accordance with the requirements in the technical reference in Section 12.6.5). LIDB accepts queries from other Network Elements, or GST's network, and provides appropriate responses. The query originator need not be the owner of LIDB data. LIDB queries include functions such as screening billed numbers that provides the ability to accept Collect or Third Number Billing calls and validation of Telephone Line Number based non-proprietary calling cards. The interface for the LIDB functionality is the interface between the GTE CCS network and other

CCS networks at the appropriate STPs. 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.

12.4.2 Technical Requirements

- 12.4.2.1 Prior to the availability of a long-term solution for Number Portability, GTE shall enable GST to store in GTE's LIDB any subscriber Line Number or Special Billing Number record, (in accordance with the technical reference in Section 12.6.5) whether ported or not, for which the NPA-NXX or NXX-0/IXX Group is supported by that LIDB.
- 12.4.2.2 Prior to the availability of a long-term solution for Number Portability, GTE shall enable GST to store in GTE's LIDB any subscriber Line Number or Special Billing Number (in accordance with the technical reference in Section 12.6.5) record, whether ported or not, and NPA-NXX and NXX-0/IXX Group Records, belonging to an NPA-NXX or NXX-0/IXX owned by GST.
- 12.4.2.3 Subsequent to the availability of a long-term solution for Number Portability, GTE shall enable GST to store in GTE's LIDB any subscriber Line Number or Special Billing Number (in accordance with the technical reference in Section 12.6.5) record.
- 12.4.2.4 GTE shall perform the following LIDB functions (i.e., processing of the following query types as defined in the technical reference in Section 12.6.5) for GST's subscriber records in LIDB:
 - 12.4.2.4.1 Billed Number Screening (provides information such as whether the Billed Number may accept Collect or Third Number Billing calls); and
 - 12.4.2.4.2 Calling Card Validation.
- 12.4.2.5 GTE shall process GST's subscriber records in LIDB at least at parity with GTE subscriber records, with respect to other LIDB functions (as defined in the technical reference in this Section 12.4). GTE shall indicate to GST what additional functions (if any) are performed by LIDB in their network.
- 12.4.2.6 Within two (2) weeks after a request by GST, GTE shall provide GST with a list of the subscriber data items which GST 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.

- 12.4.2.7 Design and performance criteria for GTE's LIDB systems shall be such that:
 - 12.4.2.7.1 operating deficiencies that would result in calls being blocked, shall not exceed thirty (30) minutes per year;
 - 12.4.2.7.2 operating deficiencies that would not result in calls being blocked shall not exceed twelve (12) hours per year;
 - 12.4.2.7.3 the LIDB function shall be in overload (degraded performance in accordance with the technical reference in Section 12.6) no more than twelve (12) hours per year. Such deficiency period is in addition to the periods specified in Section 12.4.2.7.1-2.
 - 12.4.2.7.4 GTE shall provide GST with the capability to provision (e.g., to add, update, and delete) NPA-NXX and NXX-0/IXX Group Records, and Line Number and Special Billing Number Records, associated with GST subscribers, directly into GTE's LIDB provisioning process.
 - 12.4.2.7.5 Unless directed otherwise by GST, in the event that end user subscribers change their local service provider, GTE shall maintain subscriber data (for line numbers and for any other types of data maintained in LIDB, except for calling card numbers) so that such subscribers shall not experience any interruption of service due to the lack of such maintenance of subscriber data.
 - 12.4.2.7.6 All additions, updates and deletions of GST data to the LIDB shall be solely at the direction of GST.
 - 12.4.2.7.7 GTE shall provide priority updates to LIDB for GST data upon GST's request (e.g., to support fraud protection).
 - 12.4.2.7.8 GTE shall provide GST the capability to directly obtain, through an electronic interface, reports of all GST data in LIDB once GTE has the ability to partition LIDB.
 - 12.4.2.7.9 No more than 0.01% of GST subscriber records will be missing from LIDB.

- 12.4.2.7.10 GTE shall perform backup and recovery of all of GST's data in LIDB as frequently as GST may reasonably specify, including sending to LIDB all changes made since the date of the most recent backup copy.
- 12.4.2.7.11 GTE shall provide to GST access to LIDB measurements and reports at least at parity with the capability GTE has for its own subscriber records and that GTE provides to any other party. Such access shall be electronic once GTE has the ability to partition LIDB.
- 12.4.2.7.12 GTE shall provide mean processing time at the LIDB within 0.50 seconds under normal conditions as defined in the technical reference in Section 12.6.
- 12.4.2.7.13 GTE shall provide processing time at the LIDB within one (1) second for 99% of all messages under normal conditions as defined in the technical reference in Section 12.6.
- 12.4.2.7.14 99.9 % of all LIDB queries in a round-trip response within two (2) seconds.
- 12.4.2.7.15 LIDB performance that complies with the following standards:
 - 12.4.2.7.15.1 There shall be at least a 99.9% reply rate to all query attempts.
 - 12.4.2.7.15.2 Queries shall time out at LIDB no more than 0.1% of the time.
 - 12.4.2.7.15.3 Data in LIDB replies shall have at no more than 2% unexpected data values, for all queries to LIDB.
 - 12.4.2.7.15.4 No more than 0.01% of all LIDB queries shall return a missing subscriber record.
 - 12.4.2.7.15.5 There shall be no defects in LIDB Data Screening of responses.
 - 12.4.2.7.15.6 Group troubles shall occur for no more than 1% of LIDB queries. Group troubles include:

- 12.4.2.7.15.7 Missing Group -- When reply is returned "vacant" but there is no active record for the 6-digit NPA-NXX group.
- 12.4.2.7.15.8 Vacant Code -- When a 6-digit code is active but is not assigned to any subscriber on that code.
- 12.4.2.7.15.9 Non-Participating Group and unavailable Network Resource should be identified in the LARG (LIDB Access Routing Guide) so GST does not pay access for queries that will be denied in LIDB.
- 12.4.2.8 GTE shall provide GST with LIDB reports of data which are missing or contain errors within the time period reasonably designated by GST.
- 12.4.2.9 GTE shall prevent any access to or use of GST data in LIDB by GTE personnel or by any other party that is not authorized by GST in writing.
- 12.4.2.10 GTE shall provide GST 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 12.6) for Subscriber Data that is part of an NPA-NXX or NXX-0/IXX wholly or partially owned by GST at least at parity with GTE Subscriber Data. GTE shall obtain from GST the screening information associated with LIDB Data Screening of GST data in accordance with this requirement.
- 12.4.2.11 GTE shall accept queries to LIDB associated with GST subscriber records, and shall return responses in accordance with the requirements of this Section 12.

12.4.3 Interface Requirements

GTE shall offer LIDB in accordance with the requirements of this subsection 13.4.3.

- 12.4.3.1 The interface to LIDB shall be in accordance with the technical reference in Section 12.6.3.
- 12.4.3.2 The CCS interface to LIDB shall be the standard interface described in Section 12.6.3.

12.4.3.3 The LIDB Data Base interpretation of the ANSI-TCAP messages shall comply with the technical reference in Section 12.6.4. Global Title Translation shall be maintained in the signaling network in order to support signaling network routing to the LIDB.

12.5 Toll-Free Number Database

The Toll-Free Number Database is a SCP database that provides functionality necessary for toll free (e.g., 800 and 888) number services by providing routing information and additional vertical features during call set-up in response to queries from SSPs. *Charges for use of GTE's toll free number database will be on a per-query response basis.* This Subsection 12.5 supplements the requirements of Subsection 12.2 and 12.6. GTE shall provide the Toll Free Number Database in accordance with the following:

12.5.1 Technical Requirements

- 12.5.1.1 GTE shall make the GTE Toll Free Number Database available for GST to query, from a switch designated by GST including GTE unbundled local switching, with a toll-free number and originating information.
- 12.5.1.2 The Toll-Free Number Database shall return carrier identification and, where applicable, the queried toll-free number, translated numbers and instructions as it would in response to a query from a GTE switch.
- 12.5.1.3 The SCP shall also provide, where available and at GST's option, such additional feature as described in SR-TSV-002275 (BOC Notes on the GTE Networks, SR-TSV-002275, Issue 2, (Bellcore, April 1994)) as are available to GTE. These may include but are not limited to:
 - 12.5.1.3.1 Network Management;
 - 12.5.1.3.2 Subscriber Sample Collection; and
 - 12.5.1.3.3 Service Maintenance.

12.5.2 Interface Requirements

The signaling interface between the GST or other local switch and the Toll-Free Number database shall use the TCAP protocol as specified in the technical reference in Section 12.6.1, together with the signaling network interface as specified in the technical reference in Sections 12.6.2 and 12.6.6.

- 12.6 The performance of SCPs Databases shall be equal to or better than all of the requirements for SCPs Databases set forth in the following technical references:
 - 12.6.1 GR-246-CORE, Bell Communications Research Specification of Signaling System Number 7, ISSUE 1 (Bellcore, December 199);
 - 12.6.2 GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP). (Bellcore, March 1994);
 - 12.6.3 GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service 6, Issue 1, Rev. 1 (Bellcore, October 1995);
 - 12.6.4 GR-1149-CORE, OSSGR Section 10: System Interfaces, Issue 1 (Bellcore, October 1995) (Replaces TR-NWT-001149);
 - 12.6.5 GR-1158-CORE, OSSGR Section 22.3: Line Information Database 6, Issue (Bellcore, October 1995)
 - 12.6.6 GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll-Free Service (Bellcore, May 1995); and
 - 12.6.7 "Bellcore Special Report SR-TSV-002275, IBOC Notes on the LEC Networks Signaling".

13. Directory Assistance Listing Information

- 13.1 GTE shall include in its directory assistance database all directory assistance listing information, which consists of name and address ("DA Listing Information") for all GST Customers, including those with nonpublished and unlisted numbers, at no charge to GST.
- 13.2 GTE shall provide to GST, at GST's request, in accordance with Article VII, within thirty (30) days after the Effective Date, all published DA Listing Information via magnetic tape delivered within twenty-four (24) hours of preparation, at a rate equal to the cost of the tape itself and the cost of preparing and sending the magnetic tape. Changes to the DA Listing Information shall be updated on a daily basis through the same means used to transmit the initial list. DA Listing Information provided shall indicate whether the customer is a residence or business customer.

14. Data Switching

- 14.1 Access. GTE will provide unbundled access to GTE data switches to GST at the user network interface ("UNI") and network to network interface ("NNI") level subject to mutual agreement on technical standards.
- 14.2 Parity. Data switching features and functionalities provided to GST will be at parity with those GTE provides to GTE end users. In the event of overflow or congestion conditions on the data switching network, GST's data traffic carried on GTE facilities will be equal priority to GTE data traffic.
- 14.3 Interface. To the extent a standard interface is available in a GTE switch, it will be made available to GST.
- 14.4 Testing, Monitoring, Administration and Maintenance. Testing, monitoring, administration and maintenance will be performed by GTE in a nondiscriminatory manner.

15. <u>Digital Cross-Connect System (DCS)</u>

15.1 Definition:

- 15.1.1 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-1 s) 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.
- 15.1.2 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.
- 15.1.3 Interconnection between a DSX or LGX, to a switch, another cross-connect, or other service platform device, is included as part of DCS.

15.2 DCS Technical Requirements

- 15.2.1 DCS shall provide completed end-to-end cross-connection of the channels designated by GST.
- 15.2.2 DCS shall perform facility grooming, multipoint bridging (where available), one-way broadcast, two-way broadcast, and facility test functions.
- 15.2.3 DCS shall provide multiplexing, format conversion, signaling conversion, or other functions.
- 15.2.4 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.
- 15.2.5 GTE shall continue to administer and maintain DCS, including updates to the control software to current available releases, provided, however, GTE retains discretion concerning deployment of software releases.
- 15.2.6 GTE shall provide various types of Digital Cross-Connect Systems including:
 - 15.2.6.1 DS0 cross-connects (typically termed DCS 1/0);
 - 15.2.6.2 DS1/VT1.5 (Virtual Tributaries at the 1.5Mbps rate) cross-connects (typically termed DCS 3/1);
 - 15.2.6.3 DS3 cross-connects (typically termed DCS 3/3);
 - 15.2.6.4 STS-1 cross-connects; and
 - 15.2.6.5 Other technically feasible cross-connects designated by GST pursuant to BFR processes in Article III.
- 15.2.7 GTE shall establish the processes to implement cross-connects on demand, or, at GST's option, permit GST control of such configurations and reconfigurations.
- 15.2.8 GTE shall provide scheduled configuration and reconfiguration of the channels between the physical interfaces (i.e., GTE shall establish the processes to implement cross-connects on the schedule designated by GST, or, at GST's option, permit GST to control such configurations and reconfigurations).
- 15.2.9 DCS shall continuously monitor protected circuit packs and redundant common equipment, where technically feasible.

- 15.2.10 DCS shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation, where technically feasible.
- 15.2.11 The underlying equipment used to provide DCS shall be equipped with a redundant power supply or a battery back-up.
- 15.2.12 GTE shall make available to GST spare facilities and equipment necessary for provisioning repairs, and to meet GST's maintenance standards as specified in the Provisioning and Maintenance sections.
- 15.2.13 At GST's option, GTE shall provide GST with Real-Time alarm data on the signals and the components of the underlying equipment used to provide DCS that actually impact or might impact GST's services. For example, this may include hardware alarm data and facility alarm data on a DS3 in which an GST DS1 is traversing.
- 15.2.14 At GST's option, GTE shall provide GST 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. Real-time ability to initiate tests will require a dedicated test head at DCS.
- 15.2.15 DCS shall provide SONET to asynchronous gateway functionality (e.g., STS-1 to DS1 or STS-1 to DS3).
- 15.2.16 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).
- 15.2.17 DCS shall have SONET ring terminal functionality where the underlying equipment used to provide DCS acts as a terminal on a SONET ring, where technically feasible.
- 15.2.18 DCS shall provide multipoint bridging of multiple channels to other DCSs. GST 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, where technically feasible.
- 15.2.19 DCS shall multiplex lower speed channels onto a higher speed interface and demultiplex higher speed channels onto lower speed interfaces as designated by GST.
- 15.3 DCS Interface Requirements

- 15.3.1 GTE shall provide physical interfaces on DS0, DS1, and VT1.5 channel cross-connect devices at the DS1 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and GST standards, where technically feasible.
- 15.3.2 GTE shall provide physical interfaces on DS3 channel cross-connect devices at the DS3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and GST-specified configurations.
- 15.3.3 GTE shall provide physical interfaces on STS-1 cross-connect devices at the OC-3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and GST-specified configurations, where technically feasible.
- 15.3.4 Interfaces on all other cross-connect devices shall be in compliance with applicable Bellcore, ANSI, ITU, and GST-specified configurations.
- 15.4 DCS shall, at a minimum, meet all the requirements set forth in the following technical references:
 - 15.4.1 ANSI T1.102-1993, American National Standard for Telecommunications Digital Hierarchy Electrical Interfaces;
 - 15.4.2 ANSI T1.102.01-199x, American National Standard for Telecommunications Digital Hierarchy VT1.5;
 - 15.4.3 ANSI T1.105-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET) Basic Description including Multiplex Structure, Rates and Formats;
 - 15.4.4 ANSI T1.105.03-1994, American National Standard for Telecommunications Synchronous Optical Network (SONET) Jitter at Network Interfaces:
 - 15.4.5 ANSI T1.105.03a-1995, American National Standard for Telecommunications Synchronous Optical Network (SONET): Jitter at Network Interfaces DS1 Supplement;
 - 15.4.6 ANSI T1.105.06-199x, American National Standard for Telecommunications Synchronous Optical Network (SONET) Physical Layer Specifications;

- 15.4.7 ANSI T1.106-1988, American National Standard for Telecommunications Digital Hierarchy Optical Interface Specifications (Single Mode);
- 15.4.8 ANSI T1.107-1988, American National Standard for TelecommunicationsDigital Hierarchy Formats Specifications;
- 15.4.9 ANSI T1.107a-1990, American National Standard for Telecommunications Digital Hierarchy Supplement to Formats Specifications (DS3 Format Applications);
- 15.4.10 ANSI T1.107b-1991, American National Standard for Telecommunications Digital Hierarchy Supplement to Formats Specifications;
- 15.4.11 ANSI T1.117-1991, American National Standard for Telecommunications Digital Hierarchy Optical Interface Specifications (SONET) (Single Mode Short Reach);
- 15.4.12 ANSI T1.403-1989, Carrier to Subscriber Installation, DS1 Metallic Interface Specification:
- 15.4.13 ANSI T1.404-1994, Network-to-Subscriber Installation DS3 Metallic Interface Specification;
- 15.4.14 ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);
- 15.4.15 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;
- 15.4.16 FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;
- 15.4.17 GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;
- 15.4.18 GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria; and
- 15.4.19 TR-NWT-000776, Network Interface Description for ISDN Subscriber Access.
- 16. <u>Advanced Intelligent Network (AIN) Access</u>. GTE shall provide access to any and all GTE service applications resident in GTE's SCP through GTE's STPs. Such access may be from GST's switch or GTE's unbundled local switch.

16.1 SCE/SMS AIN Access. SCE/SMS AIN Access shall provide GST the ability to create service applications in the GTE SCE and deploy those applications via the GTE SMS to the GTE SCP. This interconnection arrangement shall provide GST access to the GTE development environment and administrative system in a manner at least at parity with GTE's ability to deliver its own AIN-based services. SCE AIN Access is the development of service applications within the GTE Service Creation Environment. SMS AIN Access is the provisioning of service applications and AIN triggers via the GTE Service Management System. See Figure 7 below.

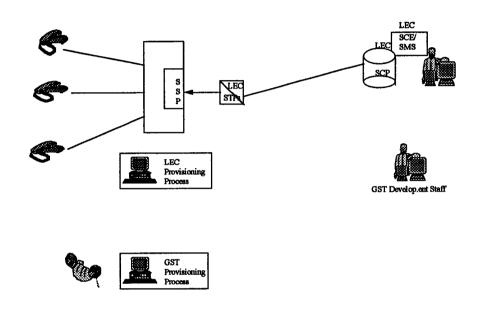


Figure 7

- 16.2 Services Available. GTE shall make SCE hardware, software, testing and technical support (e.g., technical contacts, system administrator) resources available to GST. Scheduling of SCE resources shall allow GST at least equal priority to GTE.
- 16.3 Multi-user Access. The GTE SCE/SMS shall allow for multi-user access with proper source code management and other logical security functions.
- 16.4 Partitioning. The GTE SCP shall partition and protect GST service logic and data from unauthorized access, execution or other types of compromise.
- 16.5 Training and Documentation. GTE shall provide training and documentation for GST development staff only in cases in which such training or documentation is not reasonably available from another source. If training or documentation is required in accordance with this section, it will be provided in a manner at least at parity with that provided by GTE to its development staff. Training will be conducted at a mutually agreed upon location.

- 16.6 Access Environment. When GST selects SCE/SMS AIN Access, GTE shall provide for a secure, controlled access environment on-site as well as via mutually agreed upon remote data connections (e.g., dial up, LAN, WAN).
- 16.7 Data Exchange. When GST selects SMS AIN Access, GTE shall allow GST to download data forms and/or tables to the GTE SCP via the GTE SMS without intervention from GTE (e.g., subscriber service administration and subscriber subscription).
- 16.8 Certification Testing. SCE Access is performed in an off-line environment. Services created by GST will require certification testing by GTE before the services can be provisioned in the network via SMS Access. The scheduling of GTE certification testing resources for new GST services will be jointly coordinated and prioritized between GTE and GST. GST testing requirements will be given equal priority with both GTE and other provider's requirements. In most circumstances, such testing will be completed within sixty (60) days from the date the application is submitted by GST to GTE for certification. In circumstances involving complex applications requiring additional time for testing, GTE may request additional time and GST will not unreasonably withhold approval of such request.
- 16.9 Access Standard. SCPs/Databases shall offer SCE/SMS AIN Access in accordance with the requirements of: GR-1280-CORE, AIN Service Control Point (SCP) Generic Requirements.

17. Tandem Switching

17.1 Definition:

Tandem Switching is the function that establishes a communications path between two switching offices through a third switching office (the tandem switch) including but not limited to CLEC, GTE, Independent telephone companies, IXCs and wireless carriers.

17.2 Technical Requirements

- 17.2.1 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:
 - 17.2.1.1 signaling to establish a tandem connection;
 - 17.2.1.2 screening and routing available at the tandem, or as may be developed under this Article;
 - 17.2.1.3 recording of all billable events designated by GST;

- 17.2.1.4 access to such Advanced Intelligent Network functionalities deployed at the tandem;
- 17.2.1.5 connectivity to Operator Systems as designated by GST;
- 17.2.1.6 access to Toll-Free number portability database as designated by GST:
- 17.2.1.7 all trunk interconnections discussed under the "Network Interconnection" section (e.g., SS7, MF, DTMF, Dial Pulse, PRI-ISDN, DID, and CAMA-ANI (if appropriate for 911));
- 17.2.1.8 connectivity to PSAPs where 911 solutions are deployed and the tandem is used for 911 in accord with Section 3 of Article VII; and
- 17.2.1.9 connectivity to transit traffic to and from other carriers.
- 17.2.1.10 connections (including the necessary signaling and trunking interconnections) between end offices, other tandems, IECs, ICOs, CAPs and CLEC switches.
- 17.2.1.11 local tandeming functionality between two end offices including two offices belonging to different CLEC's (e.g., between an GST end office and the end office of another CLEC).
- 17.2.1.12 where SS7 is available, preservation of CLASS/LASS features and Caller ID as traffic is processed. Additional signaling information and requirements are provided in Section 11.
- 17.2.1.13 recording of billable events and send them to the area billing centers designated by GST. Billing requirements are specified in Article VIII of this Agreement.
- 17.2.2 GTE shall perform routine testing and fault isolation on the underlying switch that is providing Tandem Switching and all its interconnections. When requested by GST, the results and reports of the testing shall be made immediately available to GST.
- 17.2.3 When requested by GST, GTE shall provide performance data regarding traffic characteristics or other measurable elements to GST for review.
- 17.2.4 Tandem Switching shall control congestion using capabilities such as Automatic Congestion Control and Network Routing Overflow. Congestion control provided or imposed on GST traffic shall be at parity with controls being

provided or imposed on GTE traffic (e.g., GTE shall not block GST traffic and leave its traffic unaffected or less affected).

- 17.2.5 Tandem Switching shall route calls to GTE or GST endpoints or platforms (e.g., operator services and PSAPs) on a per call basis as designated by GST. Detailed primary and overflow routing plans for all interfaces available within the GTE switching network shall be mutually agreed to by GST and GTE. Such plans shall meet GST requirements for routing calls through the local network.
- 17.2.6 Tandem Switching shall process originating toll-free traffic received from an GST local switch.
- 17.2.7 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.

17.3 Interface Requirements

- 17.3.1 Tandem Switching shall provide interconnection to the E911 PSAP where the underlying Tandem is acting as the E911 Tandem.
- 17.3.2 Tandem Switching shall interconnect, with direct trunks, to all carriers with which GTE interconnects.
- 17.3.3 GTE shall provide all signaling necessary to provide Tandem Switching with no loss of feature functionality.
- 17.3.4 Tandem Switching shall interconnect with GST's switch, using two-way trunks, for traffic that is transiting via the GTE network to interLATA or intraLATA carriers. At GST's request, Tandem Switching shall record and keep records of traffic for billing.
- 17.3.5 At GST'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 GST designates.
- 17.4 Tandem Switching shall meet or exceed (i.e., be more favorable to GST) each of the requirements for Tandem Switching set forth in the following technical references:
 - 17.4.1 Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, 6/1/90;
 - 17.4.2 GR-905-CORE covering CCSNIS;

17.4.3 GR-1429-CORE for call management features; and GR-2863-CORE and GR-2902-CORE covering CCS AIN interconnection.

18. Unused Transmission Media (Dark Fiber)

18.1 Definitions:

- 18.1.1 Unused Transmission Media is physical inter-office transmission media (e.g., optical fiber, copper twisted pairs, coaxial cable) which have no lightwave or electronic transmission equipment terminated to such media to operationalize transmission capabilities.
- 18.1.2 Dark Fiber, one type of unused transmission media, is unused strands of optical fiber. Dark Fiber also includes strands of optical fiber which may or may not have lightwave repeater (regenerator or optical amplifier) equipment interspliced, but which has no line terminating facilities terminated to such strands.

18.2 Requirements

- 18.2.1 GTE shall make available Unused Transmission Media to GST under an Indefeasible Right of Use or License Agreement and except as herein set forth, without restrictions on use not also applicable to itself and its Affiliates, subsidiaries or others.
- 18.2.2 GTE shall provide a Single Point of Contact ("SPOC") for negotiating all Unused Transmission Media lease Agreements.
- 18.2.3 GST may test the quality of the Unused Transmission Media to confirm its usability and performance specifications.
- 18.2.4 GTE shall provide to GST 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 GST ("Request"). Within such time period, GTE shall send written confirmation of availability of the Unused Transmission Media ("Confirmation"). From the time of the Request to ninety (90) days after Confirmation, GTE shall reserve such requested Unused Transmission Media for GST's use and may not allow any other party to use such media, including GTE.
- 18.2.5 GTE shall make Unused Transmission Media available for GST's use within twenty (20) business days after it receives written acceptance from GST that the Unused Transmission Media previously reserved by GTE is wanted for use by GST. This includes identification of appropriate connection points (e.g., Light Guide Interconnection (LGX) or splice points) to enable GST to connect or

splice GST provided transmission media (e.g., optical fiber) or equipment to the Unused Transmission Media.

18.3 Requirements Specific to Dark Fiber

- 18.3.1 GST may splice and test Dark Fiber leased from GTE using GST or GST designated personnel. GTE shall provide appropriate interfaces to allow splicing and testing of Dark Fiber. GTE shall provide an excess cable length of twenty-five (25) feet minimum (for fiber in underground conduit) to allow the uncoiled fiber to reach from the manhole to a splicing van.
- 18.3.2 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.

19. Additional Requirements

This Section 19 sets forth the additional requirements for unbundled Network Elements which GTE agrees to offer to GST under this Agreement.

19.1 Cooperative Testing

19.1.1 Definition:

Cooperative Testing means that GTE shall cooperate with GST upon request or as needed to (1) ensure that the Network Elements, Ancillary Functions and Local Resale services and additional requirements being provided to GST by GTE are in compliance with the requirements of this Agreement, (2) test the overall functionality of various Network Elements, Ancillary Functions and Local Resale services provided by GTE to GST in combination with each other or in combination with other equipment and facilities provided by GST 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, Ancillary Functions and Local Resale services and so that all appropriate billing data can be provided to GST. GTE shall provide the same cooperative testing it provides itself or its Affiliates for two-wire loops.

19.1.2 Requirements

Within 45 days of the Effective Date of this Agreement, GST and GTE will agree upon a process to resolve technical issues relating to interconnection of GST's network to GTE's network and Network Elements and Ancillary Functions. The agreed upon process shall include procedures for escalating disputes and unresolved issues up through higher levels of each company's management. If GST and GTE do not reach agreement on such a process within 45 days, any issues that have not been resolved by the Parties with respect to such process shall

be submitted to the procedures set forth in Article III of this Agreement unless both Parties agree to extend the time to reach agreement on such issues.

- 19.1.2.1 GTE shall provide GST access for testing at any interface between a GTE Network Element or combinations and GST equipment or facilities. Such test access shall be sufficient to ensure that the applicable requirements can be tested by GST. This access shall be available seven (7) days per week, 24 hours per day.
- 19.1.2.2 GST may test any interfaces, Network Elements or Ancillary Functions and additional requirements provided by GTE pursuant to this Agreement.
- 19.1.2.3 GTE shall provide engineering data as requested by GST for the loop components as set forth in Sections 4, 5, and 6 of this Article which GST may desire to test. Such data shall include equipment engineering and cable specifications, signaling and transmission path data.
- 19.1.2.4 Upon GST's request, GTE shall provide to GST 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 GST.
- 19.1.2.5 GTE shall provide to GST upon request, all applicable test results, from GTE testing activities on a Network Element or Ancillary Function or Additional Requirement or the underlying equipment providing a Network Element or Ancillary Function or Additional Requirements. GST may review such testing results and may notify GTE of any deficiencies that are detected.
- 19.1.2.6 GTE shall temporarily provision GST designated Local Switching features for testing. Within 60 days of the Effective Date of this Agreement, GST and GTE shall mutually agree on the procedures to be established between GTE and GST to expedite such provisioning processes for feature testing.
- 19.1.2.7 Upon GST's request, GTE shall provide technical staff to meet with GST representatives to provide required support for Cooperative Testing.
- 19.1.2.8 Dedicated Transport and Loop Feeder may experience alarm conditions due to in-progress tests. GTE shall not remove such facilities from service without obtaining GST's prior approval.

- 19.1.2.9 GTE shall get acceptance from GST prior to conducting 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 of service
- 19.1.2.10 GTE shall provide a single point of contact to GST 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.
- 19.1.2.11 GTE shall provide to GST electronic access to 105 responders, 100-type test lines, or 102-type test lines associated with any circuits under test.
- 19.1.2.12 GTE shall participate in Cooperative Testing with GST upon GST's request to test any operational interface or process used to provide Network Elements, Ancillary Functions or Services to GST.
- 19.1.2.13 GST and GTE shall endeavor to complete Cooperative Testing as stated in Article VIII.
- 19.1.2.14 GTE shall participate in Cooperative Testing requested by GST whenever it is deemed necessary by GST to insure service performance, reliability and subscriber serviceability.
- 19.1.2.15 GST may accept or reject the Network Element ordered by GST if, upon completion of cooperative acceptance testing, the tested Network Element does not meet the requirements stated herein.

19.2 Performance

19.2.1 Scope

This section addresses technical 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.

19.2.1.1 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.

- 19.2.1.2 GTE shall work cooperatively with GST to determine appropriate performance allocations across Network Elements.
- 19.2.2 GTE shall provide real-time, remote data access to performance monitoring and alarm data on events affecting (or potentially affecting) GST's traffic.
- 19.2.3 GTE shall provide performance equal to or better than all of the requirements set forth in the following technical references:
 - 19.2.3.1 Bell Communications Research, Inc. Documents
 - 19.2.3.1.1 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 subscribers' lines. Some modules of the LSSGR are also referenced separately in this document.
 - 19.2.3.1.2 TR-NWT-000499, Issue 5, Rev 1, April 1992, Transport Systems Generic Requirements (TSGR): Common Requirements.
 - 19.2.3.1.3 TR-NWT-000418, Issue 2, December 1992, Generic Reliability Assurance Requirements For Fiber Optic Transport Systems.
 - 19.2.3.1.4 TR-NWT-000057, Issue 2, January 1993, Functional Criteria for Digital Loop Carriers Systems.
 - 19.2.3.1.5 TR-NWT-000507, Issue 5, December 1993, LSSGR Transmission, Section 7.
 - 19.2.3.1.6 GR-303-CORE, Issue 1, September 1995, Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface.
 - 19.2.3.1.7 GR-334-CORE, Issue 1, June 1994, Switched Access Service: Transmission Parameter Limits and Interface Combinations.
 - 19.2.3.1.8 TR-NWT-000335, Issue 3, May 1993, Voice Grade Special Access Services Transmission Parameter Limits and Interface Combinations.

- 19.2.3.1.9 TR-TSY-000529, Issue 2, July 1987, Public Safety LSSGR.
- 19.2.3.1.10 GR-1158-CORE, Issue 2, October 1995, OSSGR Section 22.3: Line Information Database.
- 19.2.3.1.11 TR-TSY-000511, Issue 2, July 1987, Service Standards, a Module (Section 11) of LATA Switching Systems Generic Requirements (LSSGR, FR-NWT-000064).
- 19.2.3.1.12 TR-NWT-000393, January 1991, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.
- 19.2.3.1.13 TR-NWT-000909, December 1991, Generic Requirements and Objectives for Fiber In The Loop Systems.
- 19.2.3.1.14 TR-NWT-000505, Issue 3, May 1991, LSSGR Section 5, Call Processing.
- 19.2.3.1.15 FR-NWT-000271, 1993, Operator Services Systems Generic Requirements (OSSGR).
- 19.2.3.1.16 TR-NWT-001156, Issue 2, July 1993, OSSGR Operator Services Systems Generic Requirements, Section 21, Operator Subsystem.
- 19.2.3.1.17 SR-TSY-001 171, Issue 1, January 1989, Methods and Procedures for System Reliability Analysis.
- 19.2.3.1.18 Bellcore Telecommunications Transmission Engineering, 3rd Ed, 1990.

19.2.3.2 ANSI Standards

- 19.2.3.2.1 ANSI T1.512-1994, Network Performance Point-to-Point Voice-Grade Special Access Network Voice band Data Transmission Objectives.
- 19.2.3.2.2 ANSI T1.506-1990, Network Performance Transmission Specifications for Switched Exchange Access Network.

- 19.2.3.2.3 ANSI T1.508-1992, Telecommunications Network Performance Loss Plan for Evolving Digital Networks. Also supplement T1.508a-1993.
- 19.2.3.2.4 ANSI T1.101-1994, Digital Synchronization Network Plan.

19.2.3.3 TIA/EIA Standards

- 19.2.3.3.1 Requirements not specifically addressed here shall be found in the documents listed in Electronic Industries
 Association/Telecommunications Industries Association Standards and Engineering Publications.
- 19.2.3.3.2 TIA/EIA TSB-37A, Telephone Network Transmission Model for Evaluating Modem Performance.
- 19.2.3.3.3 TIA/EIA TSB-38, Test Procedure for Evaluation of 2-wire 4 kHz Voiceband Duplex Modems.

19.2.3.4 IEEE Standards

- 19.2.3.4.1 IEEE Standard 743-1984, IEEE Standard Methods and Equipment for Measuring Transmission Characteristics of Analog Voice Frequency Circuits.
- 19.2.3.4.2 ANSI/IEEE Standard 820-1984, Telephone Loop Performance Characteristics.

19.2.4 Services and Capabilities

- 19.2.4.1 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:
 - 19.2.4.1.1 All types of voice services.
 - 19.2.4.1.2 All types of voice-band data modem connections up to and including 28.8 Kbps V-34.
 - 19.2.4.1.3 All types of FAX transmissions up to and including 14.4 Kbps group 3.
 - 19.2.4.1.4 All CLASS/LASS features.

- 19.2.4.1.5 All Operator Systems.
- 19.2.4.2 The following capabilities shall be provided as applicable:
 - 19.2.4.2.1 ISDN BRI
 - 19.2.4.2.2 ISDN PRI
 - 19.2.4.2.3 Switched Digital Data
 - 19.2.4.2.4 Non-Switched Digital Data
 - 19.2.4.2.5 Any types of Video applications that a subscriber may order
 - 19.2.4.2.6 Any Coin Services the subscriber may order
 - 19.2.4.2.7 Frame Relay and ATM
 - 19.2.4.2.8 Private Line Services
- 19.2.5 Specific Technical Requirements for Network Elements and Ancillary Functions
 - 19.2.5.1 The following sections itemize technical parameters for Network Elements and Ancillary Functions. GTE shall provide performance equal to or better than all of the requirements set forth in this Section. Unless noted otherwise, requirements and objectives are given in terms of specific limits. This means that all tests (acceptance and ongoing performance) shall meet the limit(s) to satisfy the requirement.

19.2.5.2 Performance Allocation

19.2.5.2.1 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.

19.2.5.3 Loop Combination Architecture Constraints

19.2.5.3.1 The following constraints will limit not only the variety of Loop Combination architectures that may be considered, but also the architectures GTE may consider to deliver any Ancillary Function or Network Element. These constraints apply to the entire path between the NID portion of Loop Distribution and the GTE switch. Any exceptions to these restrictions shall be specifically requested or approved by GST in writing.

- 19.2.5.3.1.1 No more than 1 A-D conversion.
- 19.2.5.3.1.2 No more than 1, 2-to-4-wire hybrid.
- 19.2.5.3.1.3 No voice compression.
- 19.2.5.3.1.4 No echo canceled or suppressers.
- 19.2.5.3.1.5 One digital loss pad per PBX.
- 19.2.5.3.1.6 No digital gain.
- 19.2.5.3.1.7 No additional equipment that might significantly increase intermodulation distortion.

19.2.5.4 Transmission Impairments

19.2.5.4.1 Analog Impairments

19.2.5.4.1.1 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.

19.2.5.4.1.2 Loss

- 19.2.5.4.1.2.1 Electrical loss is measured using a 1004 Hz 0.0 DB one Milliwatt 900 ohm test tone.
- 19.2.5.4.1.2.2 Off-hook electrical loss between the NID and the switch shall be no more than 8.0 dB for

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

19.2.5.4.1.3 Idle Channel Circuit Noise

19.2.5.4.1.3.1 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.

19.2.5.4.1.3.2 Idle channel circuit noise shall be less than or equal to 18 dBrnC.

19.2.5.4.1.4 Talker Echo

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

19.2.5.4.1.4.2 Echo Return Loss (ERL) shall be greater than 26 dB to a standard termination (900 ohms, $2.16 \mu Fd$), and greater than 14 dB to a telephone set off-hook. Singing Return Loss (SRL) shall be greater than 2l dB to a standard termination, and greater than 1l dB to a telephone set off-hook.

19.2.5.4.1.5 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.

19.2.5.4.1.6 Propagation and Processing Delay

19.2.5.4.1.6.1 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.

19.2.5.4.1.6.2 GTE shall cooperate with GST to limit total service propagation and processing delay to levels at parity with that within the GTE local network.

19.2.5.4.1.7 Signal-to-Noise Ratio

19.2.5.4.1.7.1 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.

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

19.2.5.4.1.8 C-Notched Noise

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

19.2.5.4.1.9 Attenuation Distortion

19.2.5.4.1.9.1 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.

19.2.5.4.1.9.2 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 +1 dB/-3 dB for frequencies between 200 Hz and 3500 Hz.

19.2.5.4.1.10 Envelope Delay Distortion

19.2.5.4.1.10.1 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.

19.2.5.4.1.10.2 EDD shall be: 1704 Hz to 604 Hz \leq 350 µsec.; 1704 Hz to 2804 Hz \leq 195 µsec.; 1704 Hz to 204 Hz \leq 580 µsec.; 1704 Hz to 3404 Hz \leq 400 µsec.

19.2.5.4.1.11 Phase Jitter

19.2.5.4.1.11.1 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 (200-300 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.

19.2.5.4.1.11.2 From the NID to the interexchange carrier point of termination, phase jitter shall be < 1.5° point-to-point in the 0-300 Hz band, and < 1.8° point-to-point in the 4-300 Hz band.

19.2.5.4.1.12 Amplitude Jitter

19.2.5.4.1.12.1 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.

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

19.2.5.4.1.13 Intermodulation Distortion

19.2.5.4.1.13.1 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.

19.2.5.4.1.13.2 Both 2nd and 3rd order IMD between the NID and end office must be > 52 dB.

19.2.5.4.1.14 Impulse Noise

19.2.5.4.1.14.1 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.

19.2.5.4.1.14.2 The NID to interexchange carrier point of termination portions of connections shall introduce no impulse noise events within 6 dB 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.

19.2.5.4.1.15 Phase Hits

19.2.5.4.1.15.1 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.

19.2.5.4.1.15.2 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.

19.2.5.4.1.16 Gain Hits

19.2.5.4.1.16.1 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.

19.2.5.4.1.16.2 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.

19.2.5.4.1.17 Dropouts

19.2.5.4.1.17.1 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.

19.2.5.4.1.17.2 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.

19.2.5.4.1.18 Frequency Shift

19.2.5.4.1.18.1 Frequency shift measures any frequency changes that occur when a signal is transmitted across a channel. It is typically measured using a 1004 Hz tone. Frequency shift has Art VI - 72

very little impact on voice or voiceband data performance; however, round-trip frequency shifts can affect the ability of echo cancelers to remain converged.

19.2.5.4.1.18.2 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.

19.2.5.4.1.19 Crosstalk

19.2.5.4.1.19.1 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.

19.2.5.4.1.19.2 99% of Loop Combinations shall have probability ≤ 0.1% of experiencing crosstalk exceeding -65 dBm0.

19.2.5.4.1.20 Clipping

19.2.5.4.1.20.1 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.

19.2.5.4.1.20.2 No clipping incidents shall occur on any call.

19.2.5.4.2 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.

19.2.5.4.2.1 Signal Correlated Distortion

19.2.5.4.2.1.1 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.

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

19.2.5.4.2.1.2.1 A maximum of 1 A/D conversion, using 64 Kbps μ -law (μ =255) PCM;

19.2.5.4.2.1.2.2 No voice compression;

19.2.5.4.2.1.2.3 No echo cancellation; and

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

19.2.5.4.2.2 Slips

19.2.5.4.2.2.1 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.

19.2.5.4.2.2.2 The NID-to-interexchange carrier point of termination portion of connections shall have fewer than 0.45 slips every twenty-four (24) hours on average.

19.2.5.4.2.3 Digital Timing Jitter and Wander

19.2.5.4.2.3.1 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.

19.2.5.4.2.3.2 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.

19.2.5.4.2.4 Errored Seconds

19.2.5.4.2.4.1 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.

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

19.2.5.4.2.5 DS-1 Severely Errored Seconds

19.2.5.4.2.5.1 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, a 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.

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

19.2.5.4.2.6 Short Failure Events

19.2.5.4.2.6.1 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.

19.2.5.4.2.6.2 There shall be fewer than 1 SFE per month.

19.2.5.5 Service Availability and Reliability

Availability refers to the time period during which the service is up and usable for its intended purpose. Reliability refers to the probability that a task will be completed successfully, given that it is successfully begun. The following service availability and reliability criteria are used to design and operate GTE's network.

19.2.5.5.1 Blocked Calls

- 19.2.5.5.1.1 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.
- 19.2.5.5.1.2 For intraLATA toll service and local exchange service, the blocking level from originating (NID) to terminating NID shall not exceed 1% in any hour, except under conditions of service disruption. For access to or egress from a long distance network, the blocking rate shall not exceed 0.5% in any hour.
- 19.2.5.5.2 Downtime. Downtime is the period of time that a system is in a failed state.
 - 19.2.5.5.2.1 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.
 - 19.2.5.5.2.2 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.
 - 19.2.5.5.2.3 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.
 - 19.2.5.5.2.4 There shall be no downtime due to power failures at the switch.
 - 19.2.5.5.2.5 The probability of a stable call being cut off shall be less than 20 cutoffs per one million 1 minute calls.

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

19.2.5.5.2.7 GTE shall meet all requirements for private line services in TR-NWT-000335, ANSI T1.512-1994.

19.2.5.5.3 Dial Tone Delay

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

19.2.5.5.3.2 The average dial-tone delay shall not exceed 1.5% of calls delayed more than 3 seconds. At most 20% of calls during the high day busy hour (HDBH) shall experience dial-tone delay greater than 3 seconds.

19.2.5.5.4 Dial Tone Removal

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

19.2.5.5.4.2 The maximum dial tone removal interval shall be ≤500 milliseconds.

19.2.5.5.5 Post Dial Delay

19.2.5.5.5.1 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.

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

19.2.5.5.5.2.1 PDD 1 - A - Intra LSO

19.2.5.5.5.2.1.1 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 subscribers on the same LSO, between the Remote Switch Modules (RSMs) on the same Host, or between an RSM and Host subscribers.

19.2.5.5.5.2.1.2 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.

19.2.5.5.5.2.2 PDD1 - B - LSO to Another Local LSO

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

19.2.5.5.5.2.2.2 This PDD is expected to be better than the MCIT Long Distance objective with an average PDD of \leq 8.70 seconds with 95% \leq 1.34 seconds.

19.2.5.5.5.2.3 PDD1 - C - GST LSO to Other LSO

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

19.2.5.5.5.2.3.2 Calls from an GST LSO to another LSO via the Public Switched Telecommunications Network (PSTN), using end-to-end CCS7 signaling protocols, can expect to meet the GST PDD objectives of an average of 2.0 seconds with 95% in <2.5 seconds. Calls from an GST LSO via the PSTN to LSOs outside the local service area are assumed to use CCS7 signaling protocols to the

GST switch. The egress signaling protocols from the MCIT Switched Network 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:

19.2.5.5.5.2.3.2.1 Network Inter-Connect, CCS7 between GST and the local telephone company.

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

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

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

19.2.5.5.5.2.3.2.3.2 Calls from an GST's LSO to another GST 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.

19.2.5.5.5.2.4 Impact of Number Portability (NP) If a call forwarding option is used as an interim solution for NP, the delay due to additional switching in the local access shall not exceed 0.4 seconds (95th percentile) in addition to the PDDs described above.

19.2.5.5.5.2.5 Custom Local Area Subscriber Services (CLASS)

CLASSSM features such as Calling Name Delivery can contribute to the PDD of a call. This delay is caused by the additional time (GTE option) before

the ringing interval commences. This default delay is 3 seconds. Optional settings are available in 1 second intervals from 1 to 6 seconds. Calls to DTNs that have CLASSSM 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. MCI will specify optimal settings.

19.2.5.5.5.2.6 Partial Dial Timing

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

19.2.5.5.5.2.6.2 For subscriber lines, partial dial timing shall be >16 seconds and <24 seconds. For trunks, inband signaling time-out shall be ≥5 seconds and <20 seconds.

19.2.5.6 Local Switching

GTE shall provide performance equal to or better than the requirements for Local Switching set forth in Bellcore LSSGR TR-TSY-000511. Post dial delay for connections to GST local operator services shall be no worse than Operator Services provided by GTE. Additionally, post dial delay from the Operator Services to destination numbers shall be no worse than that provided by GTE. Post dial delay for connections to GST local directory services shall be no worse than directory services provided by GTE. Additionally, post dial delay from the directory system to destination numbers shall be no worse than that provided by GTE.

19.2.5.7 Operator Systems

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

19.2.5.8 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 GST and GTE consistent with sound engineering principles.

19.2.5.9 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 GST and GTE consistent with sound engineering principles.)

19.2.5.10 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 GST and GTE.)

19.2.5.11 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 GST and GTE consistent with sound engineering principles.

19.2.5.12 SCPs/Databases

The performance requirements for databases (NP, LIDB, E911, etc.) vary depending or the database and the applications it supports. Database-specific performance requirements are included in the sections addressing individual Network Elements and in applicable Bellcore documents. In all cases, the query response time, availability, accuracy, updating capabilities, and other performance parameters shall at least be at parity with those services as provided to GTE or other subscribers.

19.2.5.13 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 GST and GTE consistent with sound engineering principles.

19.2.6 Test and Verification

19.2.6.1 GTE shall permit GST to confirm acceptable performance of any Network Element.

19.2.6.1.1 At GST's request, GTE will provide access to the Network Element sufficient for GST to test the performance of that Network Element to GST's satisfaction.

19.2.6.1.2 At GST's request, GTE will perform tests to confirm acceptable performance and provide GST with documentation of test procedures and results acceptable to GST.

19.3 Protection, Restoration, and Disaster Recovery

19.3.1 Scope:

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

19.3.2 Requirements

- 19.3.2.1 GTE shall provide protection, restoration, and disaster recovery capabilities at parity with those capabilities provided for their own services, facilities and equipment (e.g., equivalent circuit pack protection ratios, facility protection ratios).
- 19.3.2.2 GTE shall provide Network Elements and Ancillary Functions equal priority in protection, restoration, and disaster recovery as provided to their own services, facilities and equipment.
- 19.3.2.3 GTE shall provide Network Elements and Ancillary Functions equal priority in the use of spare equipment and facilities as provided to their own services, facilities and equipment.
- 19.3.2.4 GTE shall restore Network Elements which are specific to GST end user subscribers on a priority basis as GST may designate.

19.4 Synchronization

19.4.1 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.

19.4.2 Technical Requirements

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

19.4.2.1 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.

19.4.2.2 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.

19.4.2.2.1 Intra-Building

19.4.2.2.1.1 Within a building, there may be 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 the appropriate composite signal is a 64-kHz 5/8th duty cycle, return to zero with a bipolar violation every eighth pulse (B8RZ).

19.4.2.2.2 Inter-Building

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

19.4.3 Synchronization Distribution Requirements

- 19.4.3.1 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 Genetic Criteria.
- 19.4.3.2 Central office BITS shall be powered by primary and backup power sources.
- 19.4.3.3 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.
- 19.4.3.4 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.
- 19.4.3.5 The total number of Network Elements cascaded from the stratum 1 source shall be minimized.

- 19.4.3.6 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).
- 19.4.3.7 GTE shall select for synchronization those facilities shown to have the greatest degree of availability (absence of outages).
- 19.4.3.8 Where possible, all primary and secondary synchronization facilities shall be physically diverse (this means the maximum feasible physical separation of synchronization equipment and cabling).
- 19.4.3.9 No timing loops shall be formed in any combination of primary and secondary facilities.
- 19.4.3.10 An Operations Support System (OSS) shall continuously monitor the BITS for synchronization related failures or degradation.
- 19.4.3.11 An OSS shall continuously monitor all equipment transporting synchronization facilities for synchronization related failures or degradation.
- 19.4.3.12 For non-SONET equipment, GTE shall provide synchronization facilities which, at a minimum, comply with the standards set forth in ANSI T1.101-1994.
- 19.4.3.13 For SONET equipment, GTE shall provide synchronization facilities that have time deviation (TDEV) for integration times greater than 0.05 seconds and less than or equal to 10 seconds, that is less than or equal to 10 nanoseconds. TDEV, in nanoseconds, for integration times greater than 10 seconds and less than 1000 seconds, shall be less than 3.1623 times the square-root of the integration time. For example, for integration times of 25 seconds, TDEV shall be less than 15.8 nanoseconds.

19.5 SS7 Network Interconnection

19.5.1 Definition:

Figure 8 depicts Signaling System 7 (SS7) Network Inter-connection. SS7 Network Interconnection is the interconnection of GST local Signaling Transfer Point (STPs) with GTE STPs. This interconnection provides connectivity that enables the exchange of SS7 messages among GTE switching systems and databases (DBs), GST local or tandem switching systems, and other third-party switching systems directly connected to the GTE SS7 network.

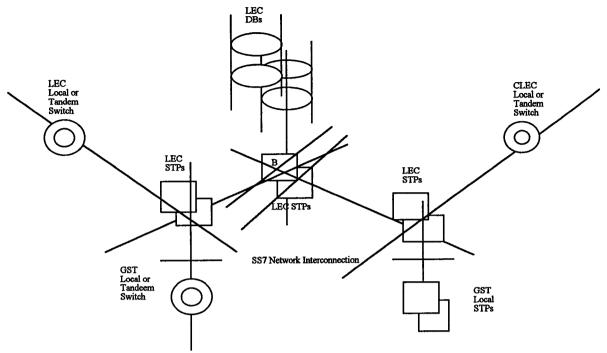


Figure 8. SS7 Network Interconnection

19.5.2 Technical Requirements

- 19.5.2.1 SS7 Network Interconnection shall provide connectivity to all components of the GTE SS7 network. These include:
 - 19.5.2.1.1 GTE local or tandem switching systems;
 - 19.5.2.1.2 GTE DBs; and
 - 19.5.2.1.3 Other third-party local or tandem switching systems.
- 19.5.2.2 The connectivity provided by SS7 Network Interconnection shall fully support the functions of GTE switching systems and DBs and GST or other third-party switching systems with A-link access to the GTE SS7 network.
- 19.5.2.3 In particular, Figure 9 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 GST local switching system and a GTE or other third-party local switching system, either directly or via a GTE tandem switching system, then it is a requirement that the GTE SS7 network convey via SS7 Network Interconnection the TCAP messages that are necessary to provide Call Management services (Automatic Callback, Automatic Recall, and Screening List Editing)

between the GST local STPs and the GTE or other third-party local switch.

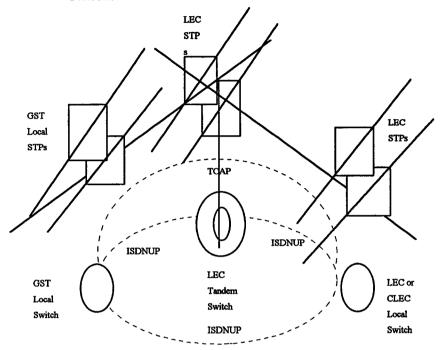


FIGURE 9. Interswitch TCAP Signaling for SS7 Network Interconnection

19.5.2.4 When the capability to route messages based on Intermediate Signaling Network Identifier (ISNI) is generally available on GTE STPs, the GTE SS7 Network shall also convey TCAP messages using SS7 Network Interconnection in similar circumstances where the GTE switch routes traffic based on a Carrier Identification Code (CIC).

19.5.2.5 SS7 Network Interconnection shall provide all functions of the MTP as specified in ANSI T1. 111. This includes:

19.5.2.5.1 Signaling Data Link functions, as specified in ANSI T1.111.2;

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

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

19.5.2.6 SS7 Network Interconnection shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in

- ANSI T1.112. In particular, this includes Global Title Translation (GTT) and SCCP Management procedures, as specified in T1.112.4.
- 19.5.2.7 Where the destination signaling point is a GTE switching system or DB, or is another third-party local or tandem switching system directly connected to the GTE SS7 network, SS7 Network Interconnection shall include final GTT of messages to the destination and SCCP Subsystem Management of the destination.
- 19.5.2.8 Where the destination signaling point is an GST local or tandem switching system, SS7 Network Interconnection shall include intermediate GTT of messages to a gateway pair of GST local STPs, and shall not include SCCP Subsystem Management of the destination.
- 19.5.2.9 SS7 Network Interconnection shall provide all functions of the Integrated Services Digital Network User Part (ISDNUP), as specified in ANSI T1.113.
- 19.5.2.10 SS7 Network Interconnection shall provide all functions of the TCAP, as specified in ANSI T1.114.
- 19.5.2.11 If and when Internetwork MTP Routing Verification Test (MRVT) and SCCP Routing Verification Test (SRVT) become approved ANSI standards and available capabilities of GTE STPs, SS7 Network Interconnection shall provide these functions of the OMAP.
- 19.5.2.12 SS7 Network Interconnection shall be equal to or better than the following performance requirements:
 - 19.5.2.12.1 MTP Performance, as specified in ANSI T1.111.6;
 - 19.5.2.12.2 SCCP Performance, as specified in ANSI T1.112.5; and
 - 19.5.2.12.3 ISDNUP Performance, as specified in ANSI T1.113.5.

19.5.3 Interface Requirements

- 19.5.3.1 GTE shall offer the following SS7 Network Interconnection options to connect GST or GST-designated STPs to the GTE SS7 network:
 - 19.5.3.1.1 D-link interface from GST STPs.

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

19.5.3.2.1 A D-link layer shall consist of four links, as depicted in Figure 10.

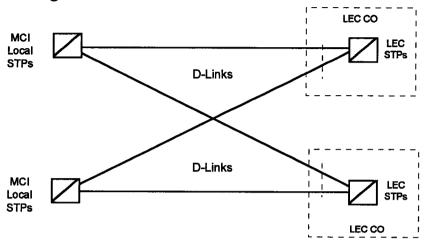


Figure 10. D-LINK Interface

19.5.3.3 The Signaling Point of Interconnection (SPOI) for each link shall be located at a cross-connect element, including but not limited to a DSX-1, in the Central Office (CO) where the GTE STPs is located. There shall be a DS1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface. GTE shall offer higher rate DS1 signaling links for interconnecting GST local switching systems or STPs with GTE STPs as soon as these become approved ANSI standards and available capabilities of GTE STPs.

19.5.3.3.1 In each LATA, there will be two signaling points of interconnection (SPOIs). The requirement for two SPOIs is driven by the critical importance attached by all parties to signaling link diversity.

19.5.3.3.2 Each Party will designate one of the two SPOIs in the LATA. A SPOI can be any existing cross connect point in the LATA. Since each Party will designate a SPOI, we believe that both Parties will be incented to select reasonable and efficient SPOI locations.

19.5.3.3.3 Each signaling link requires a port on each Party's STP, which each Party shall provide without explicit charge.

- 19.5.3.4 The GTE CO shall provide intraoffice diversity between the SPOIs and the GTE STPs, so that no single failure of intraoffice facilities or equipment shall cause the failure of both D-links in a layer connecting to a GTE STPs.
- 19.5.3.5 The protocol interface requirements for SS7 Network Interconnection include the MTP, ISDNUP, SCCP and TCAP. These protocol interfaces shall conform to the following specifications:
 - 19.5.3.5.1 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);
 - 19.5.3.5.2 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;
 - 19.5.3.5.3 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and
 - 19.5.3.5.4 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).
- 19.5.3.6 GTE shall set message screening parameters to block accept messages from GST local or tandem switching systems destined to any signaling point in the GTE SS7 network with which the GST switching system has a legitimate signaling relation.
- 19.5.4 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:
 - 19.5.4.1 ANSI T1.110-1992 American National Standard Telecommunications Signaling System Number 7 (SS7) General Information;
 - 19.5.4.2 ANSI T1.111-1992 American National Standard for Telecommunications Signaling System Number 7 (SS7) Message Transfer Part (MTP);
 - 19.5.4.3 ANSI T1.111A-1994 American National Standard for Telecommunications Signaling System Number 7 (SS7) Message Transfer Part (MTP) Supplement;

- 19.5.4.4 ANSI T1.112-1992 American National Standard for Telecommunications Signaling System Number 7 (SS7) Signaling Connection Control Part (SCCP);
- 19.5.4.5 ANSI T1.113-1995 American National Standard for Telecommunications Signaling System Number 7 (SS7) Integrated Services Digital Network (ISDN) User Part;
- 19.5.4.6 ANSI T1.114-1992 American National Standard for Telecommunications Signaling System Number 7 (SS7) Transaction Capabilities Application Part (TCAP);
- 19.5.4.7 ANSI T1.115-1990 American National Standard for Telecommunications Signaling System Number 7 (SS7) Monitoring and Measurements for Networks;
- 19.5.4.8 ANSI T1.116-1990 American National Standard for Telecommunications Signaling System Number 7 (SS7) Operations, Maintenance and Administration Part (OMAP);
- 19.5.4.9 ANSI T1.118-1992 American National Standard for Telecommunications Signaling System Number 7 (SS7) Intermediate Signaling Network Identification (ISNI);
- 19.5.4.10 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);
- 19.5.4.11 Bellcore GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service;
- 19.5.4.12 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;
- 19.5.4.13 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and,
- 19.5.4.14 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).
- 19.6 Network Interconnection

19.6.1 Technical Requirements

- 19.6.1.1 When requested by GST, GTE shall provide interconnections between the GTE Network Elements provided to GST and GST's network at transmission rates designated by GST.
- 19.6.1.2 Traffic shall be combined and routed as follows:
 - 19.6.1.2.1 GTE shall provide direct trunks for intraLATA traffic (except 911, directory assistance, operator services, and other services that may require special routing) and, at GST's request, GTE shall allow GST to route such traffic either directly to a GTE tandem or directly to a GTE end-office. At GST's option, intraLATA toll and Local Traffic shall be combined onto one trunk group.
 - 19.6.1.2.2 At GST's request, GTE shall receive GST traffic destined to the GTE Operator Systems Network Element, on trunks from an GST end-office or an GST tandem.
 - 19.6.1.2.3 At GST's request, GTE shall receive GST CAMA-ANI (Centralized Automatic Message Accounting Automatic Number identification) traffic destined to the GTE B911 PSAPs, or E911 tandems, on trunks from an GST end-office.
 - 19.6.1.2.4 At GST's request, GTE shall receive GST SS7 traffic destined to any GTE S911 tandem on trunks from an GST end-office.
- 19.6.1.3 When requested by GST and a third party carrier, GTE shall provide interconnections between GST's network, and the other carrier's network through the GTE network at transmission rates designated by GST, including, but not limited to DS1, DS3, and STS-1. GTE shall combine and route traffic to and from other local carriers and interLATA carriers through the GTE network, and at GST's request, GTE shall record and keep records of such traffic for GST billing purposes.
- 19.6.1.4 GTE shall provide two-way trunk groups for interconnections. At GST's request, GTE shall provide unidirectional traffic on such trunks, in either direction, effectively operating them as if they were one-way trunk groups.
- 19.6.1.5 GTE shall provision trunks without any user restrictions (e.g., option for two-way trunking, and no unnecessary trunk group fragmentation by traffic types).

- 19.6.1.6 All trunking provided by GTE shall adhere to the applicable performance requirements set forth in Article VI, Section 18.2.
- 19.6.1.7 At GST's request, GTE shall provide for overflow routing from a given trunk group or groups onto another trunk group or groups as GST designates.
- 19.6.1.8 GTE and GST 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.
- 19.6.1.9 Interconnection shall be made available upon GST's request at any technically feasible point of interface. All trunk interconnections shall be provided, including, SS7, MF, DTMF, Dial Pulse, PRI-ISDN (where available), DID (Direct Inward Dialing), CAMA-ANI, and trunking necessary so that interim NP can be provided.

19.6.1.10 Trunk Interface Requirements

19.6.1.10.1 B911/E911 Trunks

19.6.1.10.1.1 GTE shall allow GST to provide direct trunking to each GTE B911 serving end office, or GTE E911 tandem, as is appropriate for the applicable serving area. These trunks are to be provided as one-way trunks from a given GST end office to the GTE 911 end-office or tandem.

19.6.1.10.1.2 GTE shall provide for overflow 911 traffic to be sent to the GTE operator services platform or, at GST's direction, routed directly to GST's operator services platform.

19.6.1.10.2 S911 Trunks

In areas where S911 tandems are used, GTE shall allow GST to provide direct trunking to each GTE S911 tandem. Such SS7 trunks are to be provided as one-way trunks from a given GST end-office to the GTE S911 tandem.

19.6.1.10.3 Local Switch and Access Tandem Trunks

19.6.1.10.3.1 GTE shall provide trunks groups provisioned exclusively to carry intraLATA traffic, as designated by GST.

19.6.1.10.3.2 GTE shall provide trunk groups provisioned exclusively to carry interLATA traffic, as designated by GST.

19.6.1.10.3.3 GTE shall provide SS7 trunks which provide SS7 interconnection. At GST's request, MF trunks may be substituted for SS7 trunks where applicable.

19.6.1.10.3.4 GTE shall simultaneous route calls based on dialed digits (in accordance with the standard GR-317-CORE), and Carrier Identification Code (in accordance with the standard GR-394-CORE) over a single SS7 trunk group.

19.6.1.10.4 GTE Operator Services Trunk

19.6.1.10.4.1 For traffic from the GTE network to GST for Operator Services, GTE shall provide one trunk group per NPA served by the local GTE switch.

19.6.1.10.4.2 GTE shall provide such trunks as one-way trunks from the GTE network to the GST network.

- 19.6.2 Network Interconnection between GTE and GST shall meet or exceed all of the requirements for Network Interconnection set forth in the following technical references:
 - 19.6.2.1 GR-317-CORE, Switching System generic requirements for Call Control Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994;
 - 19.6.2.2 GR-394-CORE, Switching System generic requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994;
 - 19.6.2.3 FR-NWT-000271, OSSGR Operator Services Systems generic requirements, Bellcore, 1994 Edition; and
 - 19.6.2.4 FR-NWT-000064, LATA Switching Systems Generic Requirements (LSSGR), Bellcore, 1994 Edition.

1. Introduction	
2. Unbundled Network Elements	
3. Requirements	
4. Network Interface Device.	3
5. Loop Elements	
6. Distribution	
7. Local Switching	
8. Common Transport	
9. Dedicated Transport	
10. Signaling Link Transport	
11. Signal Transfer Points (STPs)	
12. Service Control Points Databases	
13. Directory Assistance Listing Information	
14. Data Switching	49
15. Digital Cross-Connect System (DCS)	
16. Advanced Intelligent Network (AIN) Access	
17. Tandem Switching	
18. Unused Transmission Media (Dark Fiber)	
19. Additional Requirements	
1/. /\ulinoilai ivoquii oilioilo	

ARTICLE VII

ANCILLARY SERVICES

- 1. <u>Transfer of Service Announcements</u>. When an end user customer transfers service from GTE to GST, or from GST to GTE, and does not retain its original telephone number, the Party formerly providing service to the end user will provide, upon request, a referral announcement on the original telephone number. This announcement will provide the new number of the customer. The announcement will be provided for the same length of time that the Party provides intercept or referral information for its customers that have changed telephone numbers.
- 2. <u>Coordinated Repair Calls</u>. The Parties will employ the following procedures for handling misdirected repair calls:
 - 2.1 The Parties will educate their respective customers as to the correct telephone numbers to call to access their respective repair or customer care centers.
 - 2.2 To the extent that the correct provider of service to the customer is identifiable, the Parties will refer customers that make misdirected repair calls to the other Party to the telephone number provided by the provider of service to that customer. Such referrals will be made in a courteous manner and at no charge to the other Party. Communications with end users of the other Party during such misdirected calls other than referral to the correct number are prohibited.
 - 2.3 The Parties will provide their respective repair/customer care contact numbers to one another on a reciprocal basis.

3. 911/E911 Arrangements

- 3.1 Description of Service. GST will install a minimum of two dedicated trunks to GTE's 911/E911 selective routers (i.e., 911 tandem offices) that serve the areas in which GST provides Exchange Services, for the provision of 911/E911 services and for access to all subtending PSAPs. The dedicated trunks shall be, at minimum, DS0 level trunks configured as a 2-wire analog interface or as part of a digital (1.544 Mbps) interface. Either configuration shall use CAMA type signaling with multifrequency ("MF") tones that will deliver ANI with the voice portion of the call. GTE will provide GST with the appropriate CLLI codes and specifications of the tandem office serving area and the 10-digit POTS number of each PSAP when required for alternate routing. If an GST central office serves end users in an area served by more than one GTE 911/E911 selective router, GST will install a minimum of two dedicated trunks in accordance with this section to each of such 911/E911 selective routers.
- 3.2 Transport. If GST desires to obtain transport from GTE to the GTE 911 selective routers, GST may purchase such transport from GTE at the rates set forth in Appendix C.

- 3.3 Cooperation and Level of Performance. The Parties agree to provide access to 911/E911 in a manner that is transparent to the end user. The Parties will work together to facilitate the prompt, reliable and efficient interconnection of GST's systems to the 911/E911 platforms, with a level of performance that will provide the same grade of service as that which GTE provides to its own end users. To this end, GTE will provide documentation to GST showing the correlation of its rate centers to its E911 tandems.
- 3.4 Basic 911 and E911 General Requirements:
 - 3.4.1 Basic 911 and E911 provides a caller access to the appropriate emergency service bureau by dialing a 3-digit universal telephone number (911).
 - 3.4.2 E911 shall provide additional routing flexibility for 911 calls. E911 shall use subscriber data, derived from the Automatic Location Identification/ Data Management System ("ALI/DMS"), to determine to which Public Safety Answering Point ("PSAP") to route the call.
 - 3.4.3 All requirements for E911 also apply to the use of SS7 as a type of signaling used on the interconnection trunks from the local switch to an end office or a selective router.
 - 3.4.4 Basic 911 and E911 functions provided to GST shall be at least at parity with the support and services that GTE provides to its subscribers for such similar functionality.
 - 3.4.5 Basic 911 and E911 access from Local Switching shall be provided to GST in accordance with the following:
 - 3.4.5.1 GTE and GST shall conform to all state regulations concerning emergency services.
 - 3.4.5.2 For E911, both GST and GTE shall use their respective service order processes to update access line subscriber data for transmission to the database management systems. Validation will be done via MSAG comparison listed in Section 3.4.5.6.4.
 - 3.4.5.3 If legally required by the appropriate jurisdiction, GTE shall provide for overflow 911 traffic to be routed to GTE Operator Services systems or, at GST's discretion, directly to GST operator services.
 - 3.4.5.4 Basic 911 and E911 access from the GST local switch shall be provided from GTE to GST in accordance with the following:

- 3.4.5.4.1 If required by GST and technically feasible, GTE shall interconnect direct trunks from the GST network to the E911 PSAP, or the E911 selective routers as designated by GST. Such trunks may alternatively be provided by GST.
- 3.4.5.4.2 In government jurisdictions where GTE has obligations under existing Agreements as the primary provider of the 911 System to the county (i.e., "lead telco"), GST shall participate in the provision of the 911 System as follows:
 - 3.4.5.4.2.1 Each Party shall be responsible for those portions of the 911 System for which it has control, including any necessary maintenance to each Party's portion of the 911 System.
 - 3.4.5.4.2.2 GST and GTE recognize that the lead telco in a 911 district has the responsibility of maintaining the ALI database for that district. Each company will provide its access line subscriber records to the database organization of that lead telco. GST and GTE will be responsible for correcting errors when notified by either the 911 district or its customer, and then submitting the corrections to the lead telco. Lead telco database responsibilities are covered in Section 3.4.5.8 of this Article.
 - 3.4.5.4.2.3 GST shall have the right to verify the accuracy of information regarding GST customers in the ALI database using methods and procedures mutually agreed to by the Parties.
- 3.4.5.4.3 If a third party is the primary service provider to a 911 district, GST shall negotiate separately with such third party with regard to the provision of 911 service to the agency. All relations between such third party and GST are totally separate from this Agreement and GTE makes no representations on behalf of the third party.
- 3.4.5.4.4 If GST or Affiliate is the primary service provider to a 911 district, GST and GTE shall negotiate the specific provisions necessary for providing 911 service to the agency and shall include such provisions in an amendment to this Agreement.
- 3.4.5.4.5 Interconnection and database access shall be priced as specified in Appendix C.

- 3.4.5.4.6 GTE shall comply with established, competitively neutral intervals for installation of facilities, including any collocation facilities, diversity requirements, etc.
- 3.4.5.4.7 In a resale situation, where it may be appropriate for GTE to update the ALI database, GTE shall update such database with GST data in an interval no less than is experienced by GTE subscribers, or than for other carriers, whichever is faster, at no additional cost.
- 3.4.5.5 GTE shall provide to GST the necessary Network Elements in order for GST to provide E911/911 services to government agencies in accordance with the provisioning requirements of Article VIII no later than January 1, 1997. If such elements are not available from GTE, GTE shall offer E911/911 service for resale by GST to government agencies.
- 3.4.5.6 The following are Basic 911 and E911 Database Requirements:
 - 3.4.5.6.1 The ALI database shall be managed by GTE, but is the property of GTE and any participating LEC or CLEC which provides their records to GTE.
 - 3.4.5.6.2 Copies of the MSAG shall be provided within five (5) business days after the date the request is received and provided on diskette, magnetic tape, or in a format suitable for use with desktop computers.
 - 3.4.5.6.3 GST shall be solely responsible for providing GST database records to GTE for inclusion in GTE's ALI database on a timely basis.
 - 3.4.5.6.4 GTE and GST shall arrange for the automated input and periodic updating of the E911 database information related to GST end users. GTE shall work cooperatively with GST to ensure the accuracy of the data transfer by verifying it against the Master Street Address Guide ("MSAG"). GTE shall accept electronically transmitted files or magnetic tape that conform to National Emergency Number Association ("NENA") Version #2 format.
 - 3.4.5.6.5 GST shall assign an E911 database coordinator charged with the responsibility of forwarding GST end-user ALI record information to GTE or via a third-party entity, charged with the responsibility of ALI record transfer. GST assumes all responsibility for the accuracy of the data that GST provides to GTE.

- 3.4.5.6.6 GTE shall update the database within two (2) business days of receiving the data from GST. If GTE detects an error in the GST provided data, the data shall be returned to GST within two (2) business days from when it was provided to GTE. GST shall respond to requests from GTE to make corrections to database record errors by uploading corrected records within two (2) business days. Manual entry shall be allowed only in the event that the system is not functioning properly.
- 3.4.5.6.7 GTE agrees to treat all data on GST subscribers provided under this Agreement as strictly confidential and to use data on GST subscribers only for the purpose of providing E911 services.
- 3.4.5.6.8 GTE shall adopt use of a Carrier Code (NENA standard five-character field) on all ALI records received from GST. The Carrier Code will be used to identify the carrier of record in NP configurations. The NENA Carrier Code for GST is "MCI".
- 3.4.5.6.9 GTE shall identify which ALI databases cover which states, counties or parts thereof, and identify and communicate a point of contact for each.
- 3.4.5.6.10 Where GTE is the lead telco, GST requests that GTE provide GST notification when GST ALI records have been delivered to the appropriate ALI database and appropriate selective router database. GTE does not currently have such a procedure or capability. GST and GTE agree to negotiate a positive confirmation-type solution in good faith within sixty (60) days of the Effective Date of this Agreement.
- 3.4.5.7 The following are basic 911 and E911 Network Requirements:
 - 3.4.5.7.1 GTE, at GST's option, shall provide a minimum of two (2) E911 trunks per Numbering Plan Area (NPA) code, or that quantity which will maintain P.01 transmission grade of service, whichever is the higher grade of service. These trunks will be dedicated to routing 911 calls from GST's switch to a GTE selective router.
 - 3.4.5.7.2 GTE shall provide the selective routing of E911 calls received from GST's switching office. This includes the ability to receive the ANI of GST's subscriber, selectively route the call to the appropriate PSAP, and forward the subscriber's ANI to the PSAP. GTE shall provide GST with the appropriate CLLI codes

and specifications regarding the selective router serving area associated addresses and meetpoints in the network.

- 3.4.5.7.3 Copies of Selective Routing Boundary Maps shall be available to GST. Each map shows the boundary around the outside of the set of exchange areas served by that selective router. The map assists GST with information necessary to set up its network to route E911 callers to the correct selective router.
- 3.4.5.7.4 GST shall ensure that its switch provides an eight-digit ANI consisting of an information digit and the seven-digit exchange code and line number of the calling party. GST shall also ensure that its switch provides the line number of the calling station. Where applicable, GST shall send a ten-digit ANI to GTE.
- 3.4.5.7.5 Where GTE is the lead telco, each ALI discrepancy report shall be jointly researched by GTE and GST. Corrective action shall be taken immediately by the responsible Party.
- 3.4.5.7.6 Where GTE controls the 911 network, GTE shall provide GST with a detailed written description of, but not limited to, the following information:
 - 3.4.5.7.6.1 GTE's rate centers/exchanges, where "Rate Center" is defined as a geographically-specified area used for determining mileage dependent rates in the Public Switched Telephone Network.
 - 3.4.5.7.6.2 Technical specifications for network interface, Technical specifications for database loading and maintenance.
 - 3.4.5.7.6.3 GTE shall identify special routing arrangements to complete overflow.
 - 3.4.5.7.6.4 GTE shall begin restoration of E911 and/or E911 trunking facilities immediately upon notification of failure or outage. GTE must provide priority restoration of trunks or networks outages on the same terms/conditions it provides itself and without the imposition of Telecommunications Service Priority ("TSP").
 - 3.4.5.7.6.5 GTE shall identify any special operator-assisted calling requirements to support 911.

- 3.4.5.7.6.6 Trunking shall be arranged to minimize the likelihood of central office isolation due to cable cuts or other equipment failures. Where there is an alternate means of transmitting a 911 call to a PSAP in the event of failures, that alternate means will be available to GST.
- 3.4.5.7.6.7 Circuits shall have interoffice, loop and carrier system diversity when such diversity can be achieved using existing facilities. Circuits will be divided as equally as possible across available carrier systems. Diversity will be maintained. At GST's option, diversity will be upgraded to utilize the highest level of diversity available in the network.
- 3.4.5.7.6.8 Equipment and circuits used for 911 shall be monitored at all times. Monitoring of circuits shall be done to the individual trunk level. Monitoring shall be conducted by GTE for trunks between the selective router and all associated PSAPs.
- 3.4.5.7.6.9 Repair service shall begin immediately upon report of a malfunction. Repair service includes testing and diagnostic service from a remote location, dispatch of or inperson visit(s) of personnel. Where an on-site technician is determined to be required, a technician will be dispatched without delay.
- 3.4.5.7.6.10 All 911 trunks must be capable of transmitting and received Baudot code necessary to support the use of Telecommunications Devices for the Deaf (TTY/TDDs).

3.4.5.8 Basic 911 and E911 Additional Requirements

- 3.4.5.8.1 All GST lines that have been ported via INP shall reach the correct PSAP when 911 is dialed. Where GTE is the lead telco and provides the ALI, the ALI record will contain both the GST number and GTE ported number. The PSAP attendant shall see both numbers where the PSAP is using a standard ALI display screen and the PSAP extracts both numbers from the data that is sent. GTE shall cooperate with GST to ensure that 911 service is fully available to all GST end users whose telephone numbers have been ported from GTE, consistent with State provisions.
- 3.4.5.8.2 GTE shall notify GST forty-eight (48) hours in advance of any scheduled testing or maintenance affecting GST 911 service.

- GTE shall provide notification as soon as possible of any unscheduled outage affecting GST 911 service.
- 3.4.5.8.3 GST shall be responsible for reporting all errors, defects and malfunctions to GTE. GTE shall provide GST with the point of contact for reporting errors, defects, and malfunctions in the service and shall also provide escalation contacts.
- 3.4.5.8.4 GST may enter into subcontracts with third parties, including GST Affiliates, for the performance of any of GST's duties and obligations stated herein.
- 3.4.5.8.5 GTE shall provide sufficient planning information regarding anticipated moves to SS7 signaling for the next twelve (12) months.
- 3.4.5.8.6 Where GTE is the lead telco, GTE shall provide GST with notification of any pending selective router moves within at least sixty (60) days in advance. GTE shall provide GST with notification of scheduled maintenance outages as set forth in Article VIII, Section 7.1.5.1.
- 3.4.5.8.7 GTE shall identify process for handling of "reverse ALI" inquiries by public safety entities.
- 3.4.5.8.8 Where GTE is the lead telco, GTE shall establish process for the management of NPA splits by populating the ALI database with the appropriate new NPA codes.
- 3.4.5.8.9 Where GTE is the lead telco, GTE shall provide the ability for GST to update 911 database with end user information for lines that have been ported via INP or NP.
- 3.4.6 Basic 911 and E911 Information Exchanges and Interfaces. Where GTE is the lead telco:
 - 3.4.6.1 GTE shall provide GST a data link to the ALI/DMS database or permit GST to provide its own data link to the ALI Gateway which interfaces to the ALI/DMS database. GTE shall provide error reports from the ALI/DMS database to GST within one (1) business day after GST inputs information into the ALI/DMS database. Alternately, GST may utilize GTE or a third party entity to enter subscriber information into the database on a demand basis, and validate subscriber information on a demand basis.

- 3.4.6.2 GTE and GST shall arrange for the automated input and periodic updating of the E911 database information related to GST end users. GTE shall work cooperatively with GST to ensure the accuracy of the data transfer by verifying it against the Master Street Address Guide (MSAG). GTE shall accept electronically transmitted files or magnetic tape that conform to National Emergency Number Association (NENA) Version #2 format.
- 3.4.6.3 Updates to MSAG. Upon receipt of an error recording an MCI subscriber's address from GTE, and where GTE is the lead telco, it shall be the responsibility of GST to ensure that the address of each of its end users is included in the Master Street Address Guide ("MSAG") via information provided on GST's Local Service Request ("LSR") or via a separate feed established by GST pursuant to Section 3.4.5.4 of this Article.
- 3.4.6.4 The ALI database shall be managed by GTE, but is the property of GTE and all participating telephone companies. The interface between the E911 Switch or Tandem and the ALI/DMS database for GST subscriber shall meet industry standards.
- 3.5 Compensation. In situations in which GTE is responsible for maintenance of the 911/E911 database and can be compensated for maintaining GST's information by the municipality, GTE will seek such compensation from the municipality. GTE will seek compensation from GST only if and to the extent that GTE is unable to obtain such compensation from the municipality. GTE shall charge GST a portion of the cost of the shared 911/E911 selective router.

4. Directory Assistance Service

- 4.1 GTE shall provide for the routing of directory assistance calls (including but not limited to 411, 555-1212, and, if consistent with GTE's equal access obligations, intraLATA NPA-555-1212) dialed by GST subscribers directly to either the GST DA service platform or GTE DA service platform as specified by GST. GST shall provide to GTE a prioritized list of offices in which GST seeks to have GST subscribers' directory assistance calls routed to the GST DA service platform. GTE shall respond within thirty (30) days after the date the list is received with information on the technical feasibility, costs, and completion date.
- 4.2 GST subscribers shall be provided the capability by GTE to dial the same telephone numbers for access to GST Directory Assistance that GTE subscribers to access GTE Directory Assistance.
- 4.3 In the instances where GTE provides Directory Assistance on behalf of GST (as noted in 4.1 and 4.2 above), GTE shall provide Directory Assistance functions and services to GST for its subscribers as described below:

- 4.3.1 GTE agrees to provide GST subscribers with the same Directory Assistance service available to GTE subscribers.
- 4.3.2 GTE shall notify GST in advance of any changes or enhancements to its DA service available to GTE subscribers, and shall make available such service enhancements on a non-discriminatory basis to GST.
- 4.3.3 GTE shall provide Directory Assistance to GST subscribers in accordance with GTE's internal operating procedures and standards, which shall, at a minimum, comply with accepted professional and industry standards.
- 4.3.4 GTE shall provide GST with the same level of support for the provisioning of Directory Assistance as GTE provides itself. Quality of service standards shall be in accordance with standards and performance measurements that are at least equal to the highest level of standards and/or performance measurements that GTE uses and/or which are required by law, regulatory agency, or by GTE's own internal procedures, whichever are the most rigorous.
- 4.3.5 Service levels shall comply, at a minimum, with State Regulatory Commission requirements for number of rings to answer, average work time, and disaster recovery options.
- 4.3.6 GTE agrees to maintain an adequate operator work force based on a review and analysis of actual call attempts and abandonment rate.
- 4.3.7 GST or its designated representatives may inspect any GTE-owned or sub-contracted office, which provides DA services, dependent on existing agreements that do not unnecessarily restrict access, upon five (5) business days written notice to GTE.
- 4.3.8 Directory Assistance services provided by GTE to GST subscribers in all environments (resale and non-resale) shall be branded and unbranded as set forth in Article V, Section 3.5.1.
- 4.3.9 GTE shall provide the following minimum Directory Assistance capabilities to GST's subscribers:
 - 4.3.9.1 A minimum of two subscriber listings and/or addresses or GTE parity per GST subscriber request.
 - 4.3.9.2 Name and address to GST subscribers upon request, except for unlisted numbers, where such information is provided to GTE subscribers.

- 4.3.9.3 Upon request by GST and where technically available and legally approved, within three (3) months of its technical availability from vendors, call completion to the requested number for local and intraLATA toll calls shall be sent to the network specified by GST. GTE will provide GST notice within thirty (30) days of technical availability from vendors. Rating and billing shall be done by GST.
- 4.3.9.4 Populate the Directory Assistance database in the same manner and in the same time frame as for GTE subscribers.
- 4.3.9.5 Any information provided by a Directory Assistance Automatic Response Unit ("ARU") shall be repeated the same number of times for GST subscribers as for GTE's subscribers.
- 4.3.9.6 When requested by GST, GTE shall provide instant credit on directory assistance calls at parity with that provided by GTE for GTE subscribers as provided to GTE subscribers.
- 4.3.10 GTE shall provide data regarding billable events in a mutually agreed-upon format.

5. Operator Services

- $5.1\,$ GTE shall provide for the routing of local operator services calls (including but not limited to 0+, 0-) dialed by GST subscribers directly to either the GST operator service platform or GTE operator service platform as specified by GST.
- 5.2 GST subscribers shall be provided the capability by GTE to dial the same telephone numbers to access GST operator service that GTE subscribers dial to access GTE operator service.
- 5.3 In the instances where GTE provides Operator Services on behalf of GST (as noted in 5.1 and 5.2 above), GTE shall provide, in the same nondiscriminatory manner as that provided by GTE to itself or any third party, Operator Services to GST subscribers as described below:
 - 5.3.1 GTE agrees to provide GST subscribers the same Operator Services available to GTE subscribers.
 - 5.3.2 Operator Services provided by GTE to GST subscribers in all environments (resale and non-resale) shall be branded and unbranded as set forth in Article V, Section 3.5.1.

- 5.3.3 GTE shall provide the following minimum Operator Service capabilities to GST subscribers:
 - 5.3.3.1 GTE shall complete 0+ and 0- dialed local calls.
 - 5.3.3.2 GTE shall complete 0+ intraLATA toll calls.
 - 5.3.3.3 GTE shall complete calls that are billed to a calling card and GST shall designate to GTE the acceptable types of billing.
 - 5.3.3.4 GTE shall complete person-to-person calls.
 - 5.3.3.5 GTE shall complete collect calls.
 - 5.3.3.6 GTE shall provide the capability for callers to bill to a third party and complete such calls.
 - 5.3.3.7 GTE shall complete station-to-station calls.
 - 5.3.3.8 GTE shall process emergency calls.
 - 5.3.3.9 GTE shall process Busy Line Verify and Emergency Line Interrupt requests.
 - 5.3.3.10 GTE shall process emergency call trace based on mutually agreed upon procedures.
 - 5.3.3.11 GTE shall process operator-assisted directory assistance calls.
 - 5.3.3.12 GTE shall provide GST rate quotes where Operator Services is provided by means of customized routing and MCI provides GTE the rate quotes.
 - 5.3.3.13 GTE shall process time-and-charges requests.
 - 5.3.3.14 GTE shall route 0- traffic directly to "live" operators.
 - 5.3.3.15 When requested by GST, GTE shall provide credit on operator services calls at parity with what GTE provides its customers.
 - 5.3.3.16 Caller assistance for the disabled.
 - 5.3.3.17 GTE shall provide operator-assisted conference calling in accordance with existing procedures.

- 5.4 Operator Service shall adhere to equal access requirements under applicable state and federal laws.
- 5.5 GTE shall exercise a level of fraud control in providing Operator Service to GST that GTE provides for its own operator service in the same manner as that provided by GTE to itself or to any third party.
- 5.6 GTE shall perform Class of Call Screening and Billed Number Screening when handling Collect, Third Party, and Calling Card Calls, both for station to station and person to person call types in the same manner as that provided by GTE to itself or to any third party.
- 5.7 GTE shall provide service measurements and accounting reports in the same manner as that provided by GTE to itself or to any third party or as mutually agreed upon.
- 5.8 GST or its designated representatives may inspect any GTE owned or sub-contracted office, which provides Operator Services, dependent on existing contract agreements that do not unreasonably restrict access, upon five (5) business days notice to GTE.
- 5.9 GTE shall direct GST subscriber account and other similar inquiries to the service center 800/888 or "toll-free" number designated by GST or through the use of GTE's "0 minus" transfer service when available.
- 5.10 GTE shall provide an electronic feed of GST subscriber call records in EMR format to GST in accordance with a mutually agreed-upon time schedule.
- 5.11 GTE shall accept and process overflow 911 traffic routed from GST to the underlying platform used to provide Operator Service in compliance with requirements of the applicable state/local regulatory authority.
- 5.12 Busy Line Verification and Emergency Line Interrupt:
 - 5.12.1 GTE shall permit GST to connect its Local Operator Service to GTE's Busy Line Verification and Busy Line Verification and Interrupt ("BLV/BLVI") systems and databases to enable GST to perform BLV/BLVI services or through a direct trunk to a tandem-office, paying terminating access minutes of use.
 - 5.12.2 GTE shall engineer its BLV/BLVI facilities to accommodate the anticipated volume of BLV/BLVI requests during the Busy Hour. GST may, from time to time, provide its anticipated volume of BLV/BLVI requests to GTE. In those instances when the BLV/BLVI systems and databases become unavailable, GTE shall promptly inform GST.

- 5.13 GTE shall update the Line Information Data Base ("LIDB") for GST subscribers. Additionally, GTE must provide access to LIDB for validation of collect, third party billed, and calling card billed calls.
- 5.14 Where technically feasible and when INP is deployed, if a BLV/BLVI request for a ported number is directed to a GTE operator and the query is not successful (i.e., the request yields an abnormal result), the operator shall confirm whether the number has been ported and shall direct the request to the appropriate operator. In the interim, the Parties agree to cooperate in developing standards and procedures to provide such service.
- 5.15 GTE shall allow GST to order validation and/or access and storage of Telephone Line Number ("TLN") calling cards and Billed Number Screening ("BNS"), in its LIDB, for ported numbers, in conformance with industry standards and/or as mutually agreed upon. GTE shall continue to allow GST access to its LIDB.

6. Directory Assistance and Listings Service Requests

- 6.1 These requirements pertain to GTE's DA and Listings Service Request process that enables GST to (a) submit GST subscriber information for inclusion in GTE Directory Assistance and Directory Listings databases; (b) submit GST subscriber information for inclusion in published directories; and (c) provide GST subscriber delivery address information to enable GTE to fulfill directory distribution obligations.
 - 6.1.1 GTE shall accept orders on a real-time basis via electronic interface in accordance with OBF Directory Service Request standards within nine (9) months after final standard adoption. In the interim, GTE shall create a standard format and order process by which GST can place an order via electronic exchange no later than the Effective Date of this Agreement.
 - 6.1.2 GTE will provide to GST the following Directory Listing Migration Options, valid under all access methods, including but not limited to, Resale, Unbundled Network Elements and Facilities-Based:
 - 6.1.2.1 Migrate with no Changes: Retain all white and yellow page listings for the subscriber in both DA and DL. Transfer ownership and billing for primary white page listings to GST.
 - 6.1.2.2 Migrate with Additions: Retain all white and yellow page listings for the subscriber in both DA and DL. Incorporate the specified additional listings order. Transfer ownership and billing for primary white page listings to GST.
 - 6.1.2.3 Migrate with Deletions: Retain all white and yellow page listings for the subscriber in both DA and DL. Delete the specified listings from

- the listing order. Transfer ownership and billing for primary white page listings to GST.
- 6.1.3 The Parties agree that Directory Listings Options for the directory listing order are unique to the directory portion of the order and may be different from the migration options specified on the service portion of the order, if one exists.
- 6.1.4 GTE shall enable GST to electronically transmit multi-line listing orders.
- 6.1.5 GTE will provide GST with a summary of completed Directory Service Requests on a daily basis. The summary information will include but is not limited to the following information:
 - 6.1.5.1 White page listings text and format (name, address, phone, title, designation, extra line information);
 - 6.1.5.2 Yellow page listing text and format;
 - 6.1.5.3 Yellow page heading code;
 - 6.1.5.4 Listing Instruction codes; and
 - 6.1.5.5 Listed book.
- 6.1.6 GTE shall provide the ability for GST to electronically query the GTE listing system to view all listings real-time.
- 6.1.7 To ensure accurate order processing, GTE shall provide to GST the following information, with updates within reasonable timeframes and one (1) business day of change if possible and via electronic exchange if available:
 - 6.1.7.1 An identification of NXX to central office
 - 6.1.7.2 Geographical maps if available of GTE directory area
 - 6.1.7.3 A description of calling areas covered by each directory, including but not limited to maps of calling areas and matrices depicting calling privileges within and between calling areas in all cases where available
 - 6.1.7.4 Yellow page heading codes
 - 6.1.7.5 Directory names and codes, and identification of which telephone directories are provided to which subscribers by subscriber address, NPA/NXX, or other criteria

- 6.1.7.6 Directory product changes
- 6.1.7.7 Listing format rules
- 6.1.7.8 Listing alphabetizing rules
- 6.1.7.9 Standard abbreviations acceptable for use in listings and addresses
- 6.1.7.10 Titles and designations
- 6.1.7.11 A list of all available directories and their close dates
- 6.1.8 Based on changes submitted by GST, GTE shall update and maintain directory assistance and directory listings data for GST subscribers who:
 - 6.1.8.1 Disconnect Service
 - 6.1.8.2 Change carrier
 - 6.1.8.3 Install Service
 - 6.1.8.4 Change any service which affects DA information
 - 6.1.8.5 Specify Non-Solicitation in all cases where available
 - 6.1.8.6 Are Non-Published, Non-Listed, or Listed
- 6.1.9 Neither Party shall charge the other Party for storage of the other Party's subscriber information in DA and DL systems.
- 6.2 Directory Listings General Requirements
 - 6.2.1 This Section pertains to Listings requirements published in any media, including but not limited to traditional white/yellow pages, specialty directories, CD ROM, or other printed or electronic formats.
 - 6.2.2 GTE shall include in its master subscriber system database all list information for GST subscribers.
 - 6.2.3 GTE shall employ GST listing information for the production of GTE-published white and yellow page directories. GTE's use for other purposes will require separate agreements. GTE shall not sell or license, nor allow any third party, the use of GST subscriber listings without the prior written consent of GST, which shall not be unreasonably withheld. GTE shall not disclose nor allow any

third party to disclose non-listed name or address information for any purpose other than what may be necessary to complete directory distribution. GTE will charge GST a reasonable service bureau extraction fee for all third party translations, and GST will be free to establish its own fees for direct billing to third parties.

- 6.2.4 GST subscriber listings shall be interfiled with listings of GTE and other CLEC subscribers.
- 6.2.5 GTE will include at no charge a basic listing for each GST customer in the white pages of the telephone directory for that customer's specific geographic area. Listing data shall include the same type of listings available to GTE customers under the same rates, terms, and conditions. Government listings will be listed in the same manner as GTE customer government listings.
- 6.2.6 GTE shall provide GST end users with the same yellow pages services on the same terms and conditions as those provided to GTE end users. GTE shall provide an GST end user within the geographical area covered by the yellow pages directory a basic listing in the yellow pages directory at no charge under the classified heading that most accurately reflects the primary nature of the customer's business. GTE shall supply GST with a list of classified headings. GST shall supply the appropriate heading for their respective end users.
- 6.2.7 GTE shall provide and maintain for GST at least one (1) white page and at least one (1) yellow page (if applicable) listing for each GST subscriber that has ported its number from GTE. The listing and handling of listed and non-listed telephone numbers shall be at least at parity with that provided by GTE to its own subscribers.
- 6.2.8 GTE will list in the Information Pages of its directories, at no charge, GST critical customer contact information for business and residential customers regarding emergency services, billing, sales and service information, repair services, and MCI's logo. GTE will also offer GST the opportunity to purchase up to four (4) additional customer call guide pages (in the information pages of each telephone directory) to discuss their respective products and services. GST agrees to pay a price for the additional pages to be determined by GTE Directories, provided that such price shall be non-discriminatory to GTE and GST.
- 6.2.9 One (1) month prior to the date on which updates to the directory are no longer allowed (the Directory Close date), GTE shall provide GST a method of reviewing and correcting GST subscriber directory listings.
- 6.2.10 Additional and foreign White Page listing charges should be billed to GST and itemized at the telephone number sub-account level in CABS format.

6.2.11 Directory Distribution

- 6.2.11.1 GTE shall provide initial distribution of white and yellow pages directories to all end user customers of GST at no charge within the same directory service area in which, and under the same delivery timetable as, GTE provides such directories to its own end user customers.
- 6.2.11.2 GTE shall provide secondary distribution of directories (e.g., a new customer, requests for additional copies) to end user customers of GST at the same price that GTE is charged by GTE Directories for secondary distribution and under the same delivery timetable as GTE provides secondary distribution of such directories to its own end user subscribers. GST agrees to pay GTE Directories for secondary distribution based on GTE's agreement that the secondary distribution cost will be excluded from GTE's cost studies and resulting avoided cost discounts and prices for Unbundled Network Elements.
- 6.2.12 GTE shall permit, or ensure a third party permits, GST subscribers to place orders for foreign directories on the same terms and conditions such directories are made available to GTE subscribers. GTE shall provide to GST the procedures, terms, and conditions for obtaining foreign telephone directories from GTE.
- 6.2.13 GST agrees to provide GTE with subscriber mailing information to allow GTE to perform its directory distribution responsibilities.
- 6.2.14 Upon request, and at no charge, GTE shall provide, or ensure a third party provides, reasonable quantities of directories to cover areas in which GST is an authorized CLEC for GST's internal use. GST shall pay for shipping and handling.
- 6.2.15 GTE shall make available recycling services to GST subscribers under the same terms and conditions that GTE makes such services available, if at all, to its own subscribers.
- 6.2.16 In the event this Agreement terminates, GST shall continue to provide GTE directory listings on a book-by-book basis until the next Directory Close date for each book.

6.3 Directory Assistance Data

This section refers to the residential, business, and government subscriber records used by GTE to create and maintain databases for the provision of live or automated operator assisted Directory Assistance. Directory Assistance Data is information that enables telephone exchange carriers to swiftly and accurately respond to requests for directory information, including, but not limited to name,

address and phone numbers. Under the provisions of the Act and the FCC's Order: GTE shall provide unbundled and non-discriminatory access to the residential, business and government subscriber records used by GTE to create and maintain databases for the provision of live or automated operator assisted Directory Assistance. GST may only use this Network Element, whether individually or in combination with other Network Elements, for the provision of directory assistance services. Notwithstanding the foregoing, GTE shall not be required to provide non-listed telephone numbers; however, GTE shall provide the name and address of the non-listed party with an indication that the telephone number is non-listed.

- 6.3.1 Each Party shall provide an initial load of subscriber records via electronic data transfer for its CLECs and independent telcos included in their Directory Assistance Database within thirty (30) days of receipt of a written request after the Effective Date of this Agreement. The NPAs included shall represent the entire GTE operating region of the providing Party. The initial load shall reflect all data that is current as of one (1) business day prior to the provision date or as current as the providing Party's data.
- 6.3.2 Each Party shall provide the other Party a complete list of its CLECs and independent telcos that provide data contained in their databases.
- 6.3.3 All directory assistance data shall be provided in the format as specified in "Directory Assistance Data Information Exchanges and Interfaces" below or in Bellcore standard F20 format.
- 6.3.4 On a daily basis, each Party shall provide the other Party with updates (end user and, upon request, mass) to the Listing Information via electronic data transfer. Updates shall be current as of one (1) business day prior to the date provided or as current as the providing Party's updates.
- 6.3.5 Each Party shall provide the other Party access to its respective DA support database. For example, GST requires access to Use Restriction information including but not limited to call completion.
- 6.3.6 DA data shall specify whether the subscriber is a residential, business, or government subscriber. Additionally, data must include all levels of indentation and all levels of information specified in "Directory Assistance Data Information Exchanges and Interfaces" below.
- 6.3.7 DA data shall be provided for Telecommunications Services on the same terms, conditions, and rates that GTE provides to itself or other third parties. Such data shall be provided to GST at the cost of media, either Network Data Mover ("NDM") or tape.

- 6.3.8 GTE and GST will designate a mutually agreed and technically feasible point at which the data will be provided.
- 6.4 Directory Assistance Data Information Exchanges and Interfaces
 - 6.4.1 Subscriber List Information
 - 6.4.1.1 GTE shall provide to GST, within thirty (30) days after the Effective Date of this Agreement, or at GST's request, all published Subscriber List Information (including such information that resides in GTE's master subscriber system/accounts master file) via an electronic data transfer medium and in a format which is mutually acceptable, on the same terms and conditions and at the same rates that the GTE provides Subscriber List Information to itself or to other third parties. All changes to the Subscriber List Information shall be provided to GST on the same day as the change occurred through the electronic data transfer medium used to transmit the initial Subscriber List Information. Both the initial List and all subsequent Lists shall indicate for each subscriber whether the subscriber is classified as residence or business class of service.
 - 6.4.1.2 GTE shall provide to GST within fifteen (15) days after an agreement or interim agreement is reached, or earlier if mutually agreed upon, a magnetic tape containing all published Subscriber List Information (including such information that resides in GTE's master subscriber system/accounts master file). The Parties shall work together to establish a connect direct method of transferring data for daily updates. GST will evaluate the tape for conformity to stated data requirements in the following sections 6.4.1.3 through 6.4.1.8. Upon final evaluation of the magnetic tape, GST and GTE will work toward a mutually agreed-upon modification of the format of the Subscriber List Information. All mutually agreed-upon modifications will be contained within a Subscriber List Information Format Addendum that shall be incorporated into this Agreement and shall be filed with the Commission. The Subscriber List Information Format Addendum shall have the full force of this Agreement as if executed on the same date as this Agreement.
 - 6.4.1.3 This section addresses data format requirements and data inclusion requirements for directory assistance data information exchange between GTE and GST. GTE shall provide GST the following:
 - 6.4.1.3.1 List of NPA-NXXs relating to the listing records being provided.
 - 6.4.1.3.2 List of Directory Section names and their associated NPA-NXXs.

Art VII - 20

- 6.4.1.3.3 List of Community Names expected to be associated with each of the NPA-NXXs for which listing records shall be provided.
- 6.4.1.3.4 List of Independent Company names and their associated NPA-NXXs for which their listing data shall be included in GTE's listing data.
- 6.4.1.3.5 List of Independent Company names and their associated NPA-NXXs for which their listing data is a part of GTE's directory database, but GTE is not to provide the listing data to GST under this request.
- 6.4.1.3.6 Upon initial implementation on a state by state basis, listing volume totals by directory section, NPA, and state.
- 6.4.1.3.7 Upon initial implementation on a state by state basis, average daily update volume by directory section, NPA, and state.
- 6.4.1.3.8 Identify any area wide or universal service numbers which may be listed. Identify the telephone number to be provided to callers outside the servicing area.
- 6.4.1.3.9 Identify any listing condition(s) unique to GTE's serving area which may require special handling in data processing in the directory. Indented Listings (captions) should be identified and delivered handled as specified.
- 6.4.1.4 Considerations Relating to an Indented Listing (caption) Set Requirements
 - 6.4.1.4.1 Use of line numbers, or other methods, to ensure the integrity of the caption set and identify the sequence or placement of a listing record within the caption set. A sufficient range of numbers between listing records is required to allow for the expansion of the caption set. A method is also required to permit the caption header record to be identified, but each level of indent is not required to be recapped; placement of the indent is based on line number. This method does require stringent edits to ensure the integrity of the caption set.
 - 6.4.1.4.2 Use of guideline or recapped data to identify previously established header and sub-header records for placement of data within the caption set. This permits flexibility to easily expand the caption set. This method also requires that, in addition to the

Art VII - 21

caption header record, each level of indent be recapped in order to properly build the caption set.

- 6.4.1.4.3 In order to maintain the integrity of caption replacement, with end-of-day cumulative effect, one OUT record must be sent to delete the entire caption set, followed by IN activity each listing record within the caption set.
- 6.4.1.4.4 GST requires listing instruction codes on the service order which indicate how the set is to appear in the published directory.
- 6.4.1.5 Data Processing Requirements: GTE and GST shall mutually agree to standards on the following data processing requirements:
 - 6.4.1.5.1 Identify type of tape to be used in sending the test and initial load data. For example, reel or cartridge tape. Due to the size of an initial load, it would be generally expected to be on tape and the daily update activity via another media, such as Connect:
 - 6.4.1.5.2 Identify tape or dataset label requirements.
 - 6.4.1.5.3 Identify tracking information requirements. For example, use of header and trailer records for tracking date and time, cycle numbers, sending and receiving site codes, volume count for the given tape/dataset. It may also be helpful to have some filler fields for future use.
 - 6.4.1.5.4 Identify dates GST should not expect to receive daily update activity.

Data should be received in uppercase. An asterisk (*) should be used advise of the need to apply the reverse capitalization rule. However, if the provider determines to provide the listing data from a database that has already messaged the data and applied the capitalization rules, the asterisk may be omitted.

- 6.4.1.5.5 Identify information that shall enable GST to identify listings within an indented list (caption) set. For example:
 - 6.4.1.5.6 When a particular listing has been designated to be filed as the first listing for a given level (0-7) of indent usually out of alpha sequence.

6.4.1.5.7 When an alternate call listing (e.g. If no answer) relates to multiple preceding listings of the same level.

6.4.1.5.8 Identify any other pertinent information needed to properly process the data.

6.4.1.6 Listing Types

LISTED	The listing information is available for all directory requirements.
NON-LISTED	The listing information is available to all directory requirements, but the information does not appear in the published street directory.
NON-PUBLISHED	A directory service may confirm, by name and address, the presence of a listing, but the telephone number is not available. GST may confirm the address, but is not permitted to receive the non-published telephone number. The listing information is not available in either the published directory or directory assistance.

6.4.1.7 Listing Styles

LISTING STYLE	DESCRIPTION
STRAIGHT LINE	All listing information is formatted in a straight line. Data generally consists of Name, Address, Community, and Telephone Number. Additional data may consist of dialing instructions or other general information relating to the listing.
INDENTED LISTING SET - STRAIGHT LINE UNDER (SLU)	Two or more listing records relating to the same listed subscriber. The first is formatted as a straight line listing with the additional listing(s) indented one degree under the straight line listing.
INDENTED LISTING SET - CAPTION SET	Formatted with one listing header record and multiple indented listing records. See detailed description below.

INDENTED LISTING (CAPTION) SET

HEADER RECORD	Contains listed name; address and telephone number data fields are blank.
SUB-HEADER RECORD/ LISTING	May contain name data only, or may include address and telephone number data. Associated subordinate records may, or may not be present.
INDENTED NAME LISTING	Contains name data, may or may not have address data, and telephone number data.
INDENTED ADDRESS LISTING	Contains address and telephone number data; the name data text field is blank.
LEVEL OF INDENT	Header record is zero (0), sub-header and indented records range from 1 - 7.

6.4.1.8 Data Field Elements

Requirements for Initial Processing and Daily Update Activity

DATA FIELD LENGTH **DATA ELEMENT**

FIELD

ACTION CODE	A = Add $I = InD = Delete$ or $O = out$	Required: 1 alpha character
RECORD NUMBER	Sequentially assigned number to each record for a given process (test, initial load, or update activity). Number assignment begins with 00000001 and is	Required: 8 digits
	incremented by 1 for each record on the file.	
NPA	Area code relating to the directory section the record is to be listed.	Required: 3 digits
COMPANY IDENTIFIER	The 4-character company code as defined in Section 8 of the National Exchange Carrier Association, Inc. Tariff.	Required: 4 digits
DIRECTORY	Name of the directory section where the	Required: Maximum of 50

SECTION	record is to be listed.	alpha characters
LISTING IDENTIFIER	F = Foreign C = Cross-Reference E = Enterprise (WX number requiring operator assistance to connect the call) W = Wide area or universal service	Optional: 1 alpha character
FILE PLACEMENT	B = Business (4) R = Residence (1) G = Government (2) BR = Business & Residence (5) BG = Business & Government (6) BRG = Business, Residence, & Government (7)	Required: Maximum of 3 alpha characters
LISTING TYPE	L = Listed N = Non-Listed NP = Non-Published	Required: Maximum of 2 alpha characters
LISTING STYLE	S = Straight line I = Indented listing set An Indented listing relates to either a caption or Straight Line Under (SLU) set listing.	Required: 1 alpha character
INDENT LEVEL	0 = Non-indented record 1 - 8 = Level of indented record	Required: 1 digit
ADDRESS HOUSE NUMBER	For example: 123, A-123, 123-1/2	Optional: Maximum of 20 alphanumeric characters, including hyphen, space, and slash
ADDRESS PRE- DIRECTIONAL	For example: N, S, E, W, NE, SW, NORTH	Optional: Maximum of 5 alpha characters
ADDRESS STREET NAME	For example: Main, Peachtree- Dunwoody, HWY 75 at Exit 30	Optional: Maximum of 100 alpha, alphanumeric characters, including spaces and hyphens.
ADDRESS SUFFIX OR	For example: SUITE 160, ST, or WAY	Optional: Maximum of 20 numeric, alpha, or

THOROUGHFARE		alphanumeric characters
ADDRESS POST DIRECTION	For example: N, S, NE, SW	Optional: Maximum of 5 alpha characters
ADDRESS ZIP CODE	5-digits or ZIP + 4	Optional: Maximum of 10 digits, including the hyphen when using ZIP + 4
COMMUNITY NAME	Identifies the name of the community associated with the listing record. See Glossary for more details.	Maximum of 50 alphanumeric characters, including spaces and hyphen
STATE NAME ABBREVIATION	Identifies the state associated with the community name; 2-character state abbreviation used by the US Postal Office.	Maximum of 2 alpha characters
INFORMATION TEXT	Miscellaneous information relating to the listing. Including, but not limited to, for example: TOLL FREE DIAL 1 & THEN, CALL COLLECT, or TDD ONLY. The various types of Information Text must be identified to GST.	Optional: Maximum of 250 alpha, numeric, or alphanumeric characters
NAME - FIRST WORD	Surname of a Residence or Business listing, or first word of a Business or Government listing Multi-word or hyphenated surnames should be treated as one word.	Required for a zero (0) level record. Optional if an indented (level 1-8) record, unless the name text present in the indented record relates to a Surname. Maximum of 50 alpha, numeric, alphanumeric, or special characters
NAME - SUBSEQUENT WORD(S)	Given name and/or initial(s) of a Surname listing or Additional word(s) for a Business or Government listing	Expected if the First Word is the Surname of a Residence or Business listing. Maximum of 250 alpha, numeric, special, or alphanumeric characters.
LINEAL DESCENT	e.g. SR, JR, III. If Lineal Descent data cannot be uniquely identified, it should	Optional: Maximum 10 alpha characters

	be included with the Listed Name Subsequent Word(s) data and placed at the end of the name data.	
TITLE(s)	e.g. MRS, LT COL, RET SGR, DR. Multiple titles are acceptable. If title data cannot be uniquely identified, it should be included with the Listed Name Subsequent Word(s) data and placed at the end of the name data stream. If lineal descent is also in the Listed Name Subsequent Word(s) data field, title data should be placed following the lineal descent data.	Optional: Maximum of 20 alpha characters
DEGREE	e.g. MD, CPA, PHD. Multiple degrees are acceptable. If degree data cannot be uniquely identified, it should be included with the Listed Name Subsequent Word(s) data and placed at the end of the name data stream. If lineal descent and/or title data is also present, it should follow title data.	Optional: Maximum of 20 alpha characters
NICKNAME	Another name the listed subscriber may be known by.	Optional: Maximum of 20 alpha characters
BUSINESS DESIGNATION	Term used to identify the listed subscriber's profession, business, or location, e.g. ATTY, CARPETS, OFC	Optional: Maximum of 50 alpha characters
STANDARD TELEPHONE NUMBER *	NPA NXX-LINE	Optional: 12 characters, including space and hyphen
NON-STANDARD TELEPHONE NUMBER *	Telephone numbers less than or more than the standard telephone number.	Optional: Minimum of 1 digit, maximum of 22 characters, including spaces and hyphens

^{*}Either a Standard or Non-standard telephone is required for a zero level record unless the record is a Cross-reference listing or an Indented Listing (caption) Set record. A telephone number may, or may not be present on an Indented Listing Set record for level(s) 0-7.

- 6.5 Standards. GTE shall adopt use of a Carrier Code (NENA standard five-character field) on all ALI records received from GST. The Carrier Code will be used to identify the carrier of record in INP configurations. The NENA Carrier Code for GST is "MCI".
- 6.6 Performance Measurements and Reporting
 - 6.6.1 GTE shall update the DA database within the same time frames that GTE provides itself and its Affiliates. If GTE detects an error in the GST provided data, GTE shall return such data to GST within one (1) business day from when the error is detected. GST shall respond to requests from GTE to make corrections to database record errors by uploading corrected records within one (1) business day. Manual entry shall be allowed only in the event that the system is not functioning properly.
 - 6.6.2 GTE shall provide to GST, at a minimum, performance metrics and service results upon five (5) business days notice pursuant to Section 4.3.7 of this Article VII regarding speed of answer, average work time, abandoned from queue measurements, and disaster recovery plans/procedures.
 - 6.6.3 GST may request from GTE additional and/or modified reporting as business needs demand.
- 7. <u>Busy Line Verification and Interrupt</u>. Prior to the exchange of traffic under this Agreement, each Party shall establish procedures whereby its operator assistance bureau will coordinate with the operator assistance bureau of the other Party to provide Busy Line Verification ("BLV") and Busy Line Verification and Interrupt ("BLVI") services on calls between their respective end users. Each Party shall charge the other for the BLV and BLVI services at the rates contained in Appendix C.

1. Transfer of Service Announcements	1
2. Coordinated Repair Calls.	
3. 911/E911 Arrangements	1
4. Directory Assistance Service	
5. Operator Services	
6. Directory Assistance and Listings Service Requests	
7. Busy Line Verification and Interrupt	

ARTICLE VIII

SERVICE ORDERING, PROVISIONING, BILLING AND MAINTENANCE

- 1. General Business Requirements
 - 1.1 Procedures. GTE Contact with Subscribers
 - 1.1.1 GST at all times shall be the primary contact and account control for all interactions with its subscribers. GST subscribers include active GST subscribers as well as those for whom service orders are pending. For those GST subscribers with pending service orders, GTE shall be permitted to respond to subscribers' inquiries, but may not engage in any marketing related activities.
 - 1.1.2 GTE shall ensure that any GTE personnel who may receive GST subscriber inquiries, or otherwise have opportunity for such subscriber contact, act in a competitively neutral manner, and shall: (i) provide appropriate referrals and telephone numbers to subscribers who inquire about GST services or products; (ii) not in any way disparage or discriminate against GST, or its products or services; and (iii) not provide information about GTE products or services during that same inquiry or subscriber contact.
 - 1.1.3 GTE shall not use GST's request for subscriber information, order submission, or any other aspect of GST's processes or services to aid GTE's marketing or sales efforts.
 - 1.1.4 Expedite, Escalation, and Disaster Procedures
 - 1.1.4.1 No later than thirty (30) days after the Effective Date of this Agreement, GTE and GST shall develop mutually acceptable escalation and expedite procedures which may be invoked at any point in the Service Ordering, Provisioning, Maintenance, and Subscriber Usage Data transfer processes to facilitate rapid and timely resolution of disputes. In addition, GTE and GST will establish intercompany contacts lists for purposes of handling subscriber and other matters which require attention/resolution outside of normal business procedures within thirty (30) days after the Effective Date of this Agreement. GTE shall notify GST of any changes to its escalation contact list at least one (1) week before such changes are effective.
 - 1.1.4.2 No later than thirty (30) days after the Effective Date of this Agreement, GTE and GST shall jointly establish contingency and disaster recovery plans for those cases in which normal Service Ordering, Provisioning, Maintenance, Billing, and other procedures for GTE's

unbundled Network Elements, features, functions, and resale services are inoperable.

1.2 Operational and Technological Changes

1.2.1 GTE will establish quarterly reviews of network and technology plans and shall notify GST of any operational or technological (e.g., network, systems interfaces) changes that are related to any services or Network Elements purchased by GST no less than six (6) months before GTE plans to implement such change or within three (3) business days of the first date on which GTE decides to implement such change whichever is earlier. The Parties may mutually agree to shorter notice periods.

1.2.2 Subscriber of Record

1.2.2.1 GTE shall recognize GST as the Subscriber of Record for all Network Elements or services for resale ordered by GST and shall send all notices, invoices, and information which pertain to such ordered services directly to GST. GST will provide GTE with addresses to which GTE shall send all such notices, invoices, and information.

1.2.3 Work Center Interface Procedures

1.2.3.1 GTE and GST shall, within sixty (60) days of the Effective Date of this Agreement, develop and implement work center interface procedures for each function/business process.

1.3 Service Offerings

1.3.1 Changes in Retail Service Offerings

- 1.3.1.1 GTE shall notify GST of any proposed changes in the terms and conditions under which GTE 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 or services or changes in retail rates at least forty-five (45) days prior to the effective date of such change, or concurrent with GTE's internal notification process for such change, or as required by state regulatory agency notification guidelines, whichever is earliest.
- 1.3.1.2 GTE shall notify GST of any proposed changes in the terms and conditions under which it offers unbundled Network Elements including, but not limited to, the introduction or discontinuance of any features, functions, services, promotions, or changes in rates at least forty-five (45) days prior to the effective date of such change, or concurrent with GTE's

internal notification process for such change, or as required by state notification guidelines, whichever is earliest.

1.3.1.3 GTE shall provide GST with access to new Telecommunications Services and Network Elements, features and functions concurrent with availability to GTE.

1.3.2 Essential Services

1.3.2.1 At GST's request, GTE shall designate an access line as an Essential Service Line ("ESL") or TSP on the same basis as it designates an access line ESL or TSP for itself or others.

1.3.3 Caller ID

1.3.3.1 GTE shall cooperate with GST to provide tariffed equipment associated with Caller ID, in accordance with Article V.

1.3.4 TTY/TDD

1.3.4.1 GTE shall cooperate with GST to provide services and equipment necessary to serve TTY/TDD subscribers to the extent required by applicable law.

1.3.5 Blocking Services

1.3.5.1 Upon request from GST, GTE shall provide blocking of 700, 900, and 976 services, or other services of similar type as may now exist or be developed in the future, and shall provide Billed Number Screening ("BNS"), including required LIDB updates, or equivalent service for blocking completion of bill -to- third party and collect calls, on a line, trunk, or individual service basis.

1.3.6 Training Support

- 1.3.6.1 GTE shall permit GST to review and provide input on GTE training and procedures for all GTE employees who may communicate with GST subscribers. Training will be provided for all ordering, provisioning, maintenance, billing and miscellaneous services.
- 1.3.6.2 GTE shall provide training to a mutually agreed number of GST employees and shall provide at least the same information available to GTE employees. GTE shall provide training to GST at a negotiated rate no greater than the incremental cost of providing such training to GST

employees. Information/materials provided to GST should include, at a minimum, operational and procedural information, and GTE specific system access interface instruction.

1.3.7 Carrier Identification Codes

1.3.7.1 The Parties shall provide to each other the active Carrier Identification Codes ("CIC") for both Dial 1 and Toll Free services for each of their access tandems and provide updates as necessary upon reasonable request.

2. Pre-Ordering

2.1 General Business Requirements

- 2.1.1 Street Address Guide ("SAG")
 - 2.1.1.1 Within thirty (30) days after the Effective Date of this Agreement, GTE shall provide to GST the SAG data, or its equivalent, in both electronic and hard copy forms, in a format acceptable to the Parties. All changes to the SAG shall be provided to GST on a monthly or negotiated basis, as requested by GST.

2.1.2 CLASS and Custom Features

2.1.2.1 Where available, GST may order the entire set of CLASS and Custom features and functions, or a subset of any one or any combination of such features. In addition, GTE shall provide GST with a list of features and functions available on an end office by end office basis.

2.1.3 Subscriber Payment History

- 2.1.3.1 The Parties shall provide subscriber payment status reports to third-party credit reporting agencies, and shall provide each other with the names of such agencies. Subscriber status reports shall include:
 - 2.1.3.1.1 Applicant's name;
 - 2.1.3.1.2 Applicant's address;
 - 2.1.3.1.3 Applicant's previous phone number, if any;
 - 2.1.3.1.4 Original and current amount, if any, of unpaid balance in applicant's name;

- 2.1.3.1.5 Whether applicant is delinquent on payments;
- 2.1.3.1.6 Date placed on credit bureau report;
- 2.1.3.1.7 Date disconnected by GTE; and
- 2.1.3.1.8 Any other information usually provided by the Parties to credit reporting agencies.
- 2.1.3.1.9 Such information shall be provided to the credit reporting agency only for the purposes of determining or establishing the credit worthiness of the customer.
- 2.1.3.2 GTE shall not refuse service to GST for any potential GST subscriber on the basis of that subscriber's past payment history with GTE unless the customer is currently under a temporary disconnect status by GTE for nonpayment or delinquency. Such temporary disconnect status cannot exceed ten (10) business days unless required by state law. GST shall establish the credit scoring criteria for applicants for GST services.

2.1.4 Number Administration/Number Reservations

- 2.1.4.1 Until Number Administration functions are assumed by a neutral third party in accordance with FCC Rules and Regulations, GTE and GST shall receive NXX assignments from US West. In addition, GTE shall provide testing and loading of GST's NXX on the same basis as GTE provides itself or its affiliates. Further, GTE shall provide GST with access to abbreviated dialing codes, access arrangements for 555 line numbers, and the ability to obtain telephone numbers, including vanity numbers, while a subscriber is on the phone with GST. GTE shall provide the same range of number choices to GST, including choice of exchange number, as GTE provides its own subscribers. Reservation and aging of numbers shall remain GTE's responsibility.
- 2.1.4.2 Unless otherwise specifically provided by this Agreement, GST may reserve telephone numbers on the same rates, terms and conditions (formal and informal) as GTE allows its retail subscribers to reserve telephone numbers.
- 2.1.4.3 GTE shall accept GST orders for vanity numbers and blocks of numbers for use with complex services including, but not limited to, DID, CentraNet, and Hunting arrangements, as requested by GST.
- 2.1.4.4 For simple services number reservations, GTE shall provide online confirmation of the number reservation. For number reservations

associated with complex services, GTE shall provide confirmation of the number reservation within twenty-four (24) hours of GST's request.

2.2 Order Process Requirements

- 2.2.1 Desired Due Date ("DDD")
 - 2.2.1.1 GTE shall supply GST with due date intervals to be used by GST personnel to determine service installation dates.

2.2.2 Specific Unbundling Requirements

- 2.2.2.1 When ordering a Combination of Network Elements, GST shall have the option of ordering all features, functions and capabilities of each Network Element.
- 2.2.2.2 When GST orders Network Elements, GTE shall provision all features, functions, and capabilities of the Network Elements which include, but are not limited to:
 - 2.2.2.2.1 The basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to the GTE's subscribers, such as telephone number, white page listing, and dial tone; and
 - 2.2.2.2.2 All other features that the switch is capable of providing, including, but not limited to, custom calling, custom local area signaling service features, and CentraNet, as well as any technically feasible customized routing functions as provided in Article VI, Section 7.

2.3 Systems Interfaces and Information Exchanges

2.3.1 General Requirements

- 2.3.1.1 GTE shall provide to GST a list of all CLASS and Custom features and functions within thirty (30) days of the Effective Date of this Agreement and shall provide updates to such list at the time new features and functions become available.
- 2.3.2 Pre-Ordering and Provisioning for Resale Services
 - 2.3.2.1 GTE shall provide to GST a list of all intraLATA and interLATA carriers available for subscriber selection on a central office level.

- 2.3.2.2 Upon request, GTE shall provide to GST a listing at the street address level of the service coverage area of each Central Office.
- 2.3.2.3 GTE shall provide GST with access to Customer Profile Information ("CPI") pursuant to Article V of this Agreement.
 - 2.3.2.3.1 Information shall be in a format which is acceptable to GST at the line and/or trunk level. GTE shall provide to GST a real-time, electronic interface to GTE subscriber information systems which will allow GST to obtain the subscriber profile, including subscriber name, billing and service addresses, billed telephone number(s), and identification of features and services on the subscriber accounts, and to obtain information on all features and services available in the end office where subscriber's services are currently provisioned.
 - 2.3.2.3.2 Until access is available via a real-time, electronic interface for subscriber profile information, GTE agrees that GST can obtain subscriber profile information in an interim manner acceptable to GST and in accordance with subsection 2.3.2.3.1 to facilitate the service order process.
 - 2.3.2.3.3 GTE shall provide to GST a list of all Telecommunications Services features and functions, including new services, trial offers, and promotions by local serving office, within thirty (30) days of the Effective Date of this Agreement and shall provide updates to such list in accordance with Section 1.2 of this Article. Such detail shall also provide definitions and explanations of the features and functions available.

2.4 Pre-Ordering and Provisioning for Unbundling

- 2.4.1 GTE shall provide to GST upon request a listing of all technically available functionalities for Network Elements.
- 2.4.2 GTE shall provide to GST upon request all engineering design and layout information for engineered Network Elements and technical specifications for non-engineered Network Elements.
- 2.4.3 GTE shall provide to GST upon request advance information of the details and requirements for planning and implementation of NPA splits at least six (6) months prior to implementation of the split.

3. Ordering and Provisioning

3.1 General Business Requirements

3.1.1 Ordering and Provisioning Parity

- 3.1.1.1 During the term of this Agreement, GTE shall provide necessary ordering and provisioning business process support as well as those technical and systems interfaces as may be required to enable GST to provide at least the same level and quality of service for all resale services, functions, features, capabilities and unbundled Network Elements as GTE provides itself, its Affiliates or its own subscribers. GTE shall provide GST with the same level of ordering and provisioning support as GTE provides itself in accordance with standards and performance measurements that are at least equal to standards and/or performance measurements that GTE uses and/or which are required by law, regulatory agency, or by GTE's own internal procedures. These standards shall apply to the quality of the technology, equipment, facilities, processes, and techniques (including, but not limited to, such new architecture, equipment, facilities, and interfaces as GTE may deploy) that GTE provides to GST under this Agreement.
- 3.1.1.2 National Open Market Center ("NOMC")/Single Point of Contact ("SPOC")
 - 3.1.1.2.1 GTE shall provide a NOMC or equivalent which shall serve as GST's Single Point of Contact (SPOC) for all activities involved in the ordering and provisioning of GTE's unbundled Network Elements, features, functions, and resale services. The SPOC shall accept orders (through an electronic interface) twenty-four (24) hours a day, seven (7) days a week.
- 3.1.1.3 The SPOC shall provide to GST a toll-free nationwide telephone number (available from 8:00 a.m. to 8:00 p.m., Monday through Friday, Eastern Time) answered by competent, knowledgeable personnel dedicated to GST servicing matters and trained to answer questions and resolve problems in connection with the ordering and provisioning of unbundled Network Elements, features, functions, capabilities, and resale services. GTE shall extend the hours of SPOC availability/operation as required to meet demand for processing and provisioning service orders.
- 3.1.1.4 GTE shall provide, as requested by GST, through the SPOC, visit installation support in the form of coordinated scheduling, status, and dispatch capabilities from 8:00 a.m. to 8:00 p.m. Monday through Friday, Eastern Time and at all other times as required to meet demand for these functions.

3.1.2 Carrier Selection

- 3.1.2.1 For services for resale or unbundled Network Elements, GTE shall provide to GST, no later than January 1, 1997, the capability to order local service, intraLATA, interLATA, and international toll services by entering the GST subscriber's choice of carrier on a single order. GTE shall provide GST with the capability to order separate interLATA and intraLATA carriers on a line or trunk basis via the PIC/CARE order process or Local Service Request.
- 3.1.2.2 For GST subscribers, where intraLATA toll carrier selection is not implemented, or if the subscriber does not select an intraLATA toll carrier, GTE agrees to provide intraLATA toll services for resale to GST and to recognize GST as the default carrier. GST shall designate the default carrier for all other toll calls if the subscriber does not select a carrier. In all cases, GTE will route toll calls to the appropriate carrier as designated by GST.

3.1.3 Notification to IXCs

- 3.1.3.1 The Parties agree to notify IXCs using OBF-approved CARE transactions, whenever an IXC subscriber who is provided local service through services for resale, INP/NP, or unbundled switching changes such IXC's PIC status.
- 3.1.3.2 The Parties shall support and implement new Transaction Code Status Indicators ("TCSIs") defined by OBF in support of local resale to enable IXCs to provide seamless subscriber service.
 - 3.1.3.2.1 The Parties shall implement TCSIs used in conjunction with the new Local Service Provider (LSP) Identification Code for handling Account Maintenance, Subscriber Service, and Trouble Administration issues. These TCSIs include 4001/02/05, 4201-4205, 4301, 2033, 2233, 3147, 3148, 3149, and others as OBF may define.
 - 3.1.3.2.2 In addition, the Parties shall implement TCSIs used in conjunction with the new Ported Telephone Number field to link "shadow" and ported telephone numbers in support of Interim Number Portability. These TCSIs include 2231, 3150, 3151, and others as OBF may define.
- 3.1.3.3 The Parties shall provide to IXCs the Local Service Provider ID (LSP) on purchased care lists of IXC PIC'd and non-PIC'd subscribers.
- 3.1.3.4 The Parties shall provide to IXCs the Ported Telephone Number (PTN) on purchased CARE lists of IXC PIC'd and non-PIC'd subscribers.

3.2 Service Order Process Requirements

3.2.1 OBF Compliance

3.2.1.1 In accordance with OBF standards, GTE and GST shall follow the OBF-developed ordering and provisioning process standards. These processes include pre-order service inquiry, pre-order service inquiry response, firm order, acknowledgment/rejection, firm order confirmation, delay notification, and completion notification. The Parties agree to work cooperatively to implement future OBF-developed processes related to ordering and provisioning.

3.2.2 Service Migrations and New Subscriber Additions

- 3.2.2.1 For resale services, GTE shall not require a disconnect order from a subscriber, another local service provider, or any other entity, to process an GST order to establish GST Local Service and/or migrate a subscriber to GST local service.
- 3.2.2.2 GTE shall not disconnect any subscriber service or existing features at any time during the migration of that subscriber to GST service without prior GST agreement via LSR.
- 3.2.2.3 For services provided through unbundled Network Elements, GTE shall recognize GST as an agent for the subscriber in coordinating the disconnection of services provided by another CLEC or GTE. In addition, GTE will establish services provided through unbundled Network Elements based upon mutually agreed to coordinated conversion processes.
- 3.2.2.4 Unless otherwise directed by GST, when GST orders resale services or Network Elements associated with unbundled switching all trunk or telephone numbers currently associated with existing services and/or Network Elements shall be retained without loss of access to feature capability and without loss of associated ancillary services including, but not limited to, Directory Assistance and 911/E911 capability.
- 3.2.2.5 For subscriber conversions requiring coordinated cut-over activities, on a per order basis, GTE and GST will agree on a scheduled conversion time, which will be a designated two-hour time period within a designated date.
 - 3.2.2.5.1 GTE will coordinate activities of all GTE work groups involved with the conversion. This coordination will include, but not be limited to, work centers charged with manual cross-connects, electronic cross-connect mapping, and switch translations

(including, but not limited to, implementation of interim local number portability translations).

- 3.2.2.5.2 GTE will notify GST when conversion is complete.
- 3.2.2.5.3 The Parties shall cooperate to achieve the objective that end user service interruptions shall not exceed five (5) minutes.
- 3.2.3 Intercept Treatment and Transfer of Service Announcements
 - 3.2.3.1 Upon request by GST, GTE shall provide unbranded intercept treatment and transfer of service announcements to GST's subscribers. GTE shall provide such treatment and transfer of service announcement for ninety (90) days for residence customers and one (1) year for business customers or for the same period GTE provides to its customers for all service disconnects, suspensions, or transfers.

3.2.4 Desired Due Date (DDD)

- 3.2.4.1 GST shall specify on each order the Desired Due Date (DDD). GTE shall not complete the order prior to DDD or later than the due date unless authorized by GST.
- 3.2.4.2 If the DDD falls after the standard order completion interval, GTE shall complete the order on the Desired Due Date.
- 3.2.4.3 Subsequent to an initial order submission, GST may request a new/revised due date that is earlier than the minimum defined interval. Such requests could be subject to expedite charges.
- 3.2.4.4 Any special or preferred scheduling options available (e.g., expedited orders, Saturday installation), internally or externally to GTE, for ordering and provisioning services shall also be available to GST on the same terms and conditions.
- 3.2.5 Subscriber Premises Inspections and Installations
 - 3.2.5.1 GST shall perform or contract for all needs assessments, including equipment and installation requirements, at the subscriber premises.
- 3.2.6 GTE shall provide GST with the ability to schedule subscriber premises installations on the same basis as GTE schedules such installations.

3.2.7 GTE shall provide extended demarcation beyond the NID, at GST's request, using intrabuilding riser and lateral beyond the NID, if permitted under applicable FCC Rules and Regulations, charges for such extensions shall be as mutually agreed.

3.2.8 Firm Order Confirmation ("FOC")

- 3.2.8.1 GTE shall provide to GST, via an electronic interface, a Firm Order Confirmation (FOC) for each GST order. The FOC shall note the basis for any exceptions to GST's order.
- 3.2.8.2 For a revised FOC, GTE shall provide the same information and treatment as for an initial FOC.

3.2.9 Order Rejections

- 3.2.9.1 GTE shall reject and return to GST any order that GTE cannot provision, due to technical reasons, missing information, or jeopardy conditions. When an order is placed in error status, GTE shall, in its error notification to GST, specifically describe each of the reasons for which the order was placed in error status. GTE shall not refuse any orders on account of the Desired Due Date.
- 3.2.9.2 GTE agrees to accept from GST verbal administrative order errors. GTE shall immediately inform GST by telephone of any minor issues which can be handled over the phone. GTE shall provide GST a listing of error categories that may be resolved verbally.
- 3.2.9.3 If any portion of a service order, as submitted by GST, is not correct, GTE shall make all reasonable attempts to complete any portion of the work that can be completed, while awaiting correction of error conditions by GST.

3.2.10 Service Order Changes

- 3.2.10.1 If an installation or other GST-ordered work requires a change from the original GST service order in any manner, GTE shall call GST in advance of performing the installation or other work to obtain authorization. GTE shall then provide GST an estimate of additional labor hours and/or materials. After all installation or other work is completed, GTE shall notify GST of actual labor hours and/or materials used in accordance with regular service order completion schedules.
- 3.2.10.2 If additional work is completed on a service order, as approved by GST, the cost of the additional work must be reported to GST.

3.2.10.2.1 If a service order is partially completed, notification must identify the work that was done and work remaining to complete.

3.2.10.3 If an GST subscriber requests a service change at the time of installation or other work being performed by GTE on behalf of GST, GTE, while at the subscriber premises, shall direct the GST subscriber to contact GST so as to avoid unnecessary delays in service activation should GTE representative leave subscriber premises.

3.2.11 Jeopardy Situations

3.2.11.1 GTE shall provide to GST notification of any jeopardy situations prior to Committed Due Date, missed appointments and any other delay or problem in completing work specified on GST's service order as detailed on the service order.

3.2.12 Testing

3.2.12.1 Network Testing

3.2.12.1.1 GTE shall perform all pre-service testing prior to the completion of the order, including testing on local service facilities and switch translations, including, but not limited to, verification of features, functions, and services ordered by GST, in the same manner that GTE performs pre-service testing for itself. GTE shall provide GST its pre-service testing procedures upon request.

3.2.12.1.2 Within twenty-four (24) hours of GST's request for scheduled cooperative testing, GTE shall perform said testing with GST (including trouble shooting to isolate any problems) to test Network Elements purchased by GST in order to identify any problems.

3.2.12.2 Systems and Process Testing

3.2.12.2.1 GTE shall cooperate with GST upon request to ensure that all operational interfaces and processes are in place and functioning properly and efficiently, as determined by GST. Testing shall simulate actual operational procedures and systems interfaces to the greatest extent possible. GST may request cooperative testing, as set forth in Article VI, Section 19, to ensure service performance, reliability, and subscriber serviceability.

3.2.13 Service Suspensions/Restorations

3.2.13.1 Upon GST's request through a Suspend/Restore Order, GTE shall suspend or restore the functionality of any resale service or service provided through unbundled Network Elements where GTE has control over suspension or restoration of service. GTE shall provide restoration priority on a per Network Element or combination basis in a manner that conforms with mutually agreed to requested priorities, TSP and any applicable regulatory Rules and Regulations or government requirements.

3.2.14 Disconnects

3.2.14.1 GTE shall provide to GST daily information notifying GST of any services disconnected from GST in a standard format.

3.2.15 Order Completion Notification

3.2.15.1 Upon completion of a service order by the GTE in its system(s), GTE shall submit to GST an order completion which details the work performed (including a list of features and functions installed), the date completed, charges associated with the order, and verification of accurate service completion. Notification shall be provided on a daily basis.

3.2.16 Fulfillment Process

3.2.16.1 GST shall conduct all activities associated with the account fulfillment process for all GST subscribers.

3.2.17 Specific Unbundling Requirements

- 3.2.17.1 GST may order and GTE shall provision unbundled Network Elements either individually or in any combination on a single order. Network Elements ordered as combined shall be provisioned as combined by GTE unless GST specifies that the Network Elements ordered in combination be provisioned separately.
- 3.2.17.2 Prior to providing service in a specific geographic area or when GST requires a change of network configuration, GST may elect to place an order with GTE requiring GTE to prepare Network Elements and switch translations in advance of orders for additional Network Elements from GST.
- 3.2.17.3 When GST orders Network Elements that are currently connected GTE shall ensure such Network Elements remain connected and functional without any disconnection or disruption. This shall be known as Contiguous Network Connection of Network Elements. Other than the

service order charge or additional requested Network Elements, there shall be no additional charge for such connection.

- 3.2.17.4 GTE shall provide to GST, if available, ordering codes for Network Elements, combinations and Contiguous Network Elements, which shall be available to be ordered (i) on a case-by-case basis for those Network Elements that are subscriber-specific; or (ii) on a common-use basis for those Network Elements that are shared by multiple subscribers.
- 3.2.17.5 Network Elements shall be identified and ordered by GST so that they can be provisioned together. GST may specify the functionality of a combination by ordering codes without the need to specify the configuration of the individual Network Elements needed to provide that functionality.
- 3.2.17.6 When GST orders combinations of Network Elements, GTE shall provide reasonably necessary technical assistance to resolve, to the extent possible, incompatibility between elements.
- 3.2.17.7 Each order for Network Elements will contain administration, bill, contact, and subscriber information, as defined by the OBF.

3.3 Systems Interfaces and Information Exchanges

- 3.3.1 General Requirements.
 - 3.3.1.1 GTE shall provide to GST a real-time, electronic interface(s) for transferring and receiving information and executing transactions for all business functions directly or indirectly related to Service Ordering and Provisioning of Network Elements, Combinations, features, functions, and Telecommunications Services, as specified in this Article. The interface(s) shall be capable of supporting all of the steps in the OBF-developed ordering and provisioning process by January 1, 1997. These steps include pre-order service inquiry, pre-order service inquiry response, firm order acknowledgment/rejection, firm order confirmation, delay notification, and completion notification.
 - 3.3.1.2 Until such standards are completed, GTE and GST agree to use an interim, mutually agreed upon order format and interface which will be defined and negotiated between the Parties no later than forty-five (45) days after the Effective Date of this Agreement.
 - 3.3.1.3 GTE agrees to implement existing OBF-developed ordering and provisioning standards by January 1, 1997, and shall implement future

standards within ninety (90) days of completion of those standards, unless a different date is mutually agreed upon.

- 3.3.2 GTE interfaces shall provide GST with the same process and system capabilities for both Residence and Business ordering and provisioning. GST shall not be required to develop distinct processes or interfaces by class of service.
- 3.3.3 GTE and GST shall agree on and implement interim solutions for each interface within thirty (30) days after the Effective Date of this Agreement, unless otherwise specified in this Article. The interim interface(s) shall, at a minimum, provide GST the same functionality and level of service as is currently provided by the electronic interfaces used by GTE for its own systems, users, or subscribers.
- 3.3.4 Interim interfaces or processes may be modified, if so agreed by GST and GTE, during the interim period.
- 3.3.5 Until the real-time, electronic interface is available, GTE agrees that the Local Carrier Service Center ("LCSC") or similar function will accept GST orders. Orders will be transmitted to the LCSC via an interface or method agreed upon by GST and GTE.
- 3.3.6 GTE shall provide, in conjunction with GST, "electronic bonding" between GTE and GST for those interfaces where real-time, transparent access to data and systems transactions are required in order for GTE to support GST, and for GST to provide features and services to subscribers, as defined by GST's operational requirements and which meet internal performance standards. Electronic bonding shall be provided, if technically feasible, by January 1, 1997, or at such time as industry standards are available for bonding of ordering and provisioning systems.

3.4 Ordering and Provisioning for Resale Services

- 3.4.1 GTE shall provide to GST a real-time, electronic interface to GTE information systems to allow GST to assign telephone number(s) (if the subscriber does not already have a telephone number or requests a change of telephone number).
- 3.4.2 GTE shall provide to GST a real-time, electronic interface to schedule dispatch and installation appointments.
- 3.4.3 GTE shall provide to GST a real-time, electronic interface to GTE subscriber information systems which will allow GST to determine if a service call is needed to install the line or service.
- 3.4.4 GTE shall provide to GST a real-time, electronic interface to GTE information systems which will allow GST to provide service availability dates.

3.4.5 GTE shall provide to GST a real-time, electronic interface which transmits status information on service orders. Until real-time electronic interface is available, GTE agrees that GTE will provide proactive status on service orders at the following critical intervals: acknowledgment, firm order confirmation, and completion according to interim procedures to be mutually developed.

3.5 Ordering and Provisioning for Unbundling

- 3.5.1 GTE shall provide to GST a real-time, electronic interface which will allow GST to determine service due date intervals, schedule appointments, and adjust pending order due dates in real-time through the LSR process.
- 3.5.2 GTE shall provide to GST information on charges associated with special construction. Until real-time, electronic interface is available, GTE agrees that GTE will immediately notify GST of any charges associated with necessary construction via the service activation report.
- 3.5.3 GTE shall provide GST with results from mechanized loop tests in the same fashion as GTE provides such to itself.
- 3.5.4 GTE shall provide GST with confirmation of circuit assignments.

3.6 Standards

3.6.1 General Requirements

3.6.1.1 GST and GTE shall agree upon the appropriate ordering and provisioning codes to be used for Network Elements. These codes shall apply to all aspects of the unbundling of that element or combination of elements and shall be known as data elements as defined by the Telecommunications Industry Forum Electronic Data Interchange Service Order Subcommittee.

3.7 Confirmation Reporting

3.7.1 Order Confirmation and Reporting

- 3.7.1.1 GTE shall provide and acknowledge each and every GST service order as GTE provides acknowledgment to itself, GTE, as GTE provides to itself.
- 3.7.1.2 GTE shall process GST service orders and provide either Firm Order Confirmation ("FOC") of a correct service order or notification of a

rejected order and the detail of the errors contained within any data element(s) fields contained in such order.

- 3.7.1.3 When GST specifies a Desired Due Date, GTE shall complete ordering and provisioning activities within the same time frame it provides to itself.
- 3.7.1.4 For expedited due date requests, GTE shall confirm to GST GTE whether GTE can complete an initially-submitted order within the expedited interval requested by GST. Confirmation may be provided by GTE via telephone call with follow up confirmation to be provided by GTE according to normal procedures and measurement intervals.
- 3.7.1.5 Subsequent to an order which has been initially submitted by GST, GST may request an earlier new/revised due date.
 - 3.7.1.5.1 For such requests, GTE shall confirm to GST GTE whether GTE can complete the order within the expedited interval requested by GST. Confirmation may be provided by GTE via telephone call with follow up confirmation to be provided by GTE according to normal procedures and measurement intervals.
- 4. <u>Connectivity Billing and Recording</u>. This Section 4 describes the requirements for GTE to bill and record all charges GST incurs for purchasing services under this Agreement.

4.1 Procedures

- 4.1.1 GTE shall comply with OBF, and other standards referred to throughout this Agreement or mutually agreed to by the Parties.
- 4.1.2 GTE shall record and bill in accordance with this Agreement those charges GST incurs as a result of GST purchasing from GTE services; as set forth in this Agreement (hereinafter "Connectivity Charges").
- 4.1.3 GTE shall implement the national standard for billing as soon as industry consensus is achieved. GTE shall thereafter format each bill for Connectivity Charges (hereinafter "Connectivity Bill") in accordance with the CABS standard for: (1) interconnection, charges and switched access for unbundled Network Elements; and (2) resale and unbundled loop and port charges.
- 4.1.4 Charges for such services shall appear by state.

- 4.1.5 Each service purchased by GST shall be assigned a separate and unique billing code and such code shall be provided on each bill in which charges for such services appear by state.
- 4.1.6 GTE shall bill GST for the Connectivity Charges incurred; provided that, for those usage based Connectivity Charges where actual charge information is not determinable by GTE because the jurisdiction (i.e., interstate, interstate, interstate/interLATA, local) of the traffic is unidentifiable, or for other reason, the Parties shall jointly develop a process to determine the appropriate charges.
- 4.2 Measurement of usage-based Connectivity Charges shall be in actual conversation seconds. The total conversation seconds per chargeable traffic types shall be totaled for the entire monthly bill cycle and then rounded to the next whole minute.
 - 4.2.1 GTE shall provide to GST at no additional charge a Single Point of Contact for handling any billing or data exchange questions or problems that may arise.
- 4.3 As soon as possible after completion of this Agreement, each Party shall provide the other Party written notice of which form of the monthly Connectivity Bill is to be deemed the official bill to assist the Parties in resolving any conflicts that may arise between the official bill and another form of bill received via a different media which purportedly contain the same charges as are on the official bill. Prior to implementation of CABS billing GTE will provide paper billing and that will be the official bill.
- 4.4 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.
- 4.5 When sending Connectivity Bills via electronic transmission, to avoid transmission failures or the receipt of Connectivity Billing information that cannot be processed, GTE shall comply with GST's processing specifications when GTE transmits Connectivity Billing data to GST. GST shall provide to GTE notice if a Connectivity Billing transmission is received that does not meet GST's specifications or that such Party cannot process. Such transmission shall be corrected and resubmitted to GST, at GTE's sole expense, in a form that can be processed. The payment due date for such resubmitted transmissions shall be thirty-five (35) 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 Article.
- 4.6 GTE shall deliver to a location specified by GST, billing information via Connect: Direct, magnetic tape or paper, as agreed to by GST and GTE. In the event of an emergency, system failure or other such condition which prevents GTE from transmitting via Connect: Direct, GTE shall notify GST of such difficulties within two hours of detection. GTE shall deliver to a location specified by GST billing information via

magnetic tape or paper, as agreed to by GST and GTE. The Parties acknowledge that all tapes transmitted to the other Party via U.S. Mail or Overnight Delivery and which contain Connectivity Billing data shall not be returned to the sending Party.

- 4.7 Subject to the terms of this Agreement, including without limitation Section 3.2 of this Article VIII, GST shall pay GTE 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 Saturday, Sunday or a has been designated a bank holiday payment shall be made the next business day.
- 4.8 Billed amounts which are being investigated, queried, or for which claims have been or may be filed are not due for payment until such investigations, claims or queries have been fully resolved by both GST and GTE.
 - 4.8.1 GTE shall assess late payment charges to GST per the applicable state tariff.
 - 4.8.2 Each Party agrees to give notice to the other Party upon the discovery referred to as a "Notice of Discrepancy". The Parties shall endeavor to resolve the discrepancy using normal business procedures within sixty (60) calendar days from the date of the Notice of Discrepancy. If the dispute is not resolved within sixty (60) days of the date of the Notice of Discrepancy, the dispute shall be escalated to the second level of management for resolution.
 - 4.8.3 If the dispute is not resolved within ninety (90) days of the date of the Notice of Discrepancy, the dispute shall be escalated to the third level of management for resolution. If the dispute is not resolved within one hundred and twenty (120) days of the date of the Notice of Discrepancy, the dispute shall be escalated to the designated executive of the billing Party for final resolution.
 - 4.8.4 Each of the Parties shall reimburse the other Party for incorrect billing charges including, without limitation, overcharges, services ordered or requested but not delivered, interrupted services, services of poor quality and installation problems if caused by the Party. Such reimbursements shall be set forth in the appropriate section of the Connectivity Bill pursuant to CABS standards, when implemented.
- 4.9 The Parties agree to record call information in accordance with this Subsection 4.9. To the extent technically feasible, each Party shall record all call detail information associated with every call originated or terminated to the other Party's local exchange subscriber. The Parties agree that they shall record call detail information if technically feasible, even if such 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's EMR 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. GTE and GST agree that they shall retain, at each Party's sole expense, copies of all EMR records

transmitted to the other Party for at least forty five (45) calendar days after transmission to the other Party.

- 4.9.1 When GST collocates with GTE in GTE's facility as described in this Agreement, capital expenditures shall be included in the bill provided to GST. All such capital expenditures shall be given a unique BAN and invoice number. The bill label for such collocation charges shall be entitled "Expanded Interconnection Service."
- 4.10 GTE shall bill and retain charges from IXCs for access related to interexchange calls generated by resale subscribers.
- 4.11 When GST owns the end office, GTE shall not bill the RIC to either GST or IXCs.

5. <u>Information Exchange and Interfaces</u>

- 5.1 GTE shall provide GST a monthly CABS Connectivity Bill that includes all Connectivity Charges incurred by and credits and/or adjustments due to GST for those services ordered, established, utilized, discontinued or performed pursuant to this Agreement. GTE shall issue one bill per month, on the first day of the month and the billing cycle shall be on a calendar basis. Each Connectivity Bill provided by GTE to GST shall include:
 - 5.1.1 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;
 - 5.1.2 any known unbilled non-usage sensitive charges for prior periods;
 - 5.1.3 unbilled usage sensitive charges for the period beginning with the last bill date and extending up to, but not including, the current bill date;
 - 5.1.4 any known unbilled usage sensitive charges for prior nine (9) periods;
 - 5.1.5 any known unbilled adjustments.
 - 5.1.6 The Bill Date (defined as the date the bill was prepared) must be present on each bill transmitted by GTE to GST, must be a valid calendar date, and not more than ninety (90) days old. Connectivity Bills shall not be rendered for any Connectivity Charges which are incurred under this Agreement on or before ninety (90) days preceding the Bill Date, except as otherwise permitted by law.
 - 5.1.7 On each bill where 'Jurisdiction' is identified, local and local toll charges shall be identified as 'Local' and not as interstate, interstate/interLATA, intrastate,

or intrastate/intraLATA. GTE shall provide from and through dates for charges rendered on all Connectivity Bills.

- 5.1.8 GTE shall separately identify business charges from residence charges, as appropriate, and shall assign a specific adjustment or reference number provided by GST to each adjustment and credit included on the Connectivity Bill.
- 5.1.9 In accordance with the terms and conditions set forth in this Agreement GTE shall record and provide to GST all detail information associated with a call from an GST local exchange Subscriber.
- 5.1.10 GTE and GST shall issue all Connectivity Bills in accordance with the terms and conditions set forth in this Section 5. On Connectivity Bills GTE renders to GST, Billing Account Numbers (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. 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 shall 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. Any Connectivity Bill received on a Saturday, Sunday or a day designated as a bank holiday 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 days receipt has been delayed.
- 5.1.11 GTE shall issue all Connectivity Bills containing such billing data and information in accordance with the most current version of CABS published by Bellcore, or its successor, or such later versions as are adopted by Bellcore, or its successor. To the extent that there are no CABS standards governing the formatting of certain data, such data shall be issued in the format mutually agreed to by GTE and GST.
- 5.1.12 GTE and GST agree that each Party shall transmit Connectivity Billing information and data in the appropriate CABS or SECAB format electronically via Connect: Direct to the other Party at the location specified by such Party. GST data centers will be responsible for originating the calls for data transmission. GTE shall transmit in accordance to the technical specifications which shall be mutually agreed upon. GST will supply to GTE its RACF ID and password before the first transmission of data via Connect: Direct. Any changes to either Party's Connect: Direct Node ID must be sent to the other Party no later than thirty (30) calendar days before the changes take effect.

- 5.1.13 In emergency situations when tape transmittal has been used GTE shall adhere to the tape packaging requirements set forth in this Agreement. Where magnetic tape shipping containers are transported in freight compartments, adequate magnetic field protection shall be provided by a 6-inch distance from any magnetic field generating device (except a magnetron-tape device). GTE shall only use those shipping containers that contain internal insulation to prevent damage. GTE shall clearly mark on the outside of each shipping container its name, contact and return address. GTE shall not ship any Connectivity Billing tapes in tape canisters.
- 5.1.14 All emergency 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. GST reserves the right to destroy a tape that has been determined to have unrecoverable errors GST also reserves the right to replace a tape with one of equal or better quality.
- 5.1.15 Billing data tapes used in emergency circumstances 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 3
Record Length	bytes (fixed length)
Blocking	records per block
factor	
Block size	bytes per block
Labels	Standard IBM Operating
	System

5.1.16 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. GTE's name, address, and contact shall appear on the flat side of the cartridge or reel.

- 5.1.17 Tape labels shall conform to IBM OSNS Operating System Standards contained in the IBM Standard Labels Manual. IBM standard labels are 80-character records recorded in EBCDIC, odd parity.
- 5.1.18 GTE shall conform to the standard volume label format which will be prescribed by GST.
- 5.1.19 GTE shall use the IBM standard dataset label format which will be prescribed by GST.
- 5.1.20 GTE shall use test & production dataset format which meets industry standards for CABS.

5.2 Standards

- 5.2.1 No later than thirty (30) days prior to the implementation of CABS billing per this Agreement, GTE shall send to GST connectivity bill data in the appropriate mechanized format (i.e. CABS) for testing to ensure that bills can be processed and that bills comply with the requirements of this Article. After receipt of the test data from GTE GST will notify GTE if the connectivity billing transmission meets the Parties mutually agreed testing specifications. If the transmission fails to meet GST's testing specifications, the Parties shall mutually agree to resolution. At least three (3) sets of testing data must meet the Parties' testing specifications prior to GTE sending GST a mechanized production connectivity bill for the first time via electronic transmission or tape. Thereafter, GTE may begin sending GST production connectivity bills via electronic transfer on the next Bill Date, or within ten (10) days, whichever is later.
- 5.2.2 At least ninety (90) days prior to any change in existing formats or change to a different format, GTE shall send to GST 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 Article. GTE agrees that it shall not send to GST bill data in the new mechanized format until such bill data has met the testing specifications as set forth in this subsection.
- 5.2.3 During the testing period, GTE shall transmit to GST Connectivity Billing data and information via connect direct to an GST specified location.
- 5.2.4 GTE agrees that if it transmits data to GST in a mechanized format, GTE shall also comply with the following specifications which are not contained in CABS guidelines, but, which are necessary for GST to process Connectivity Billing information and data:
 - 5.2.4.1 The Bill Date shall not contain spaces or non-numeric values.

- 5.2.4.2 Each Connectivity Bill must contain at least one detail record.
- 5.2.4.3 Any "From" Date should be less than the associated "Thru" Date and neither date can contain spaces.
- 5.2.4.4 The Invoice Number must not have embedded spaces or low values.
- 5.2.5 GTE agrees that in order to ensure the proper performance and integrity of the entire Connectivity Billing process, GTE shall be responsible and accountable for transmitting to GST an accurate and current bill. GTE agrees to implement control mechanisms and procedures to render a bill that accurately reflects the services ordered and used by GST.
- 6. <u>Provision Of Customer Usage Data.</u> This Section 6 sets forth the terms and conditions for GTE's provision of Recorded Usage Data (as defined in this Article VIII) to GST and for information exchange regarding resale billing.

6.1 Procedures

6.1.1 General

- 6.1.1.1 GTE shall comply with various industry, OBF, and other standards referred to throughout this Agreement.
- 6.1.1.2 GTE shall comply with OBF standards and the additional standards outlined in this Agreement when recording and transmitting Usage Data.
- 6.1.1.3 As required by GST, GTE shall record all usage originating from GST subscribers using services ordered by GST. GST requests for recording which GTE does not perform for its own services shall be subject to the BFR process. Recorded Usage Data includes, but is not limited to, the following categories of information:

Call Attempts For Switched Access;

Completed Calls:

Use of CLASS/LASS/Custom Features;

Calls To Information Providers Reached Via GTE Facilities And Contracted By GTE;

Calls To Directory Assistance Where GTE Provides Such Service To An GST Subscriber;

Calls Completed Via GTE-Provided Operator Services Where GTE Provides Such Service To GST's Local Service Subscriber;

- Station Level Detail Records for GTE-Provided CentraNet Service Records Shall Include Complete Call Detail And Complete Timing Information.
- 6.1.2 As requested by GST, GTE shall provide GST recording of completed calls which GTE does not record for its own service offerings (e.g., flat rate free calling area service) to the extent technically feasible. GST requests for recording which GTE does not perform for its own services shall be subject to the BFR process.
- 6.1.3 Retention of Records: GTE shall maintain a machine readable back-up copy of the message detail provided to GST for a minimum of forty-five (45) calendar days. GTE shall provide any data back-up to GST upon the request of GST.
 - 6.1.3.1 GTE shall provide to GST Recorded Usage Data for GST subscribers. GTE shall not combine interconnection access records with subscriber records in this transmission.
 - 6.1.3.2 GTE shall not bill to GST subscribers any recurring or non-recurring charges except where explicitly permitted to do so within a written agreement between GTE and GST.
 - 6.1.3.3 GTE shall record and rate all calls to Local Information Service Providers (i.e., 976 calls) with which GST has a Billing and Collection Agreement. GTE will work cooperatively with GST to provide a list of Local Information Service Providers.
 - 6.1.3.4 GTE shall provide Recorded Usage Data to GST billing locations as designated by GST.
 - 6.1.3.5 GTE shall establish a local carrier service center to serve as GST's single point of contact to respond to GST call usage, data error, and record transmission inquiries.
 - 6.1.3.6 GST shall provide a single point of contact responsible for receiving usage transmitted by GTE and receiving usage tapes from a courier service in the event of a facility outage.
 - 6.1.3.7 [Section 6.1.3.7 is Reserved]

6.1.4 Charges

6.1.4.1 The Parties shall not charge any fees for recording, rating or transmitting usage data except as provided for in Section 6.1.1.3. and 6.1.2 if this Article.

6.1.4.2 No charges shall be assessed for incomplete call attempts.

6.1.5 Central Clearinghouse & Settlement

6.1.5.1 The Parties will work together to determine a mutually acceptable settlement procedure for both intra-region and inter-region billing exchanges of calling card, bill-to-third party and collect calls.

6.1.6 Lost Data

- 6.1.6.1 Loss of Recorded Usage Data GST Recorded Usage Data determined to have been lost, damaged or destroyed as a result of an error or omission by GTE in its performance of the recording function shall, upon GST's request, be recovered by GTE at no charge to GST. In the event the data cannot be recovered by GTE, GTE shall estimate the messages and associated revenue, with assistance from GST, based upon the method described below. This method shall be applied on a consistent basis, subject to modifications agreed to by GTE and GST. This estimate shall be used to adjust amounts GST owes GTE for services GTE provides in conjunction with the provision of Recorded Usage Data.
- 6.1.6.2 Partial Loss GTE shall review its daily controls to determine if data has been lost. When there has been a partial loss, actual message and minute volumes shall be reported, if possible. Where actual data are not available, a full day shall be estimated for the recording entity, as outlined in the following paragraphs. 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.
- 6.1.6.3 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.
- 6.1.6.4 Estimated Volumes From message and minute volume reports for the entity experiencing the loss, GTE shall secure message/minute counts for the four (4) corresponding days of the weeks preceding that in which the loss occurred and compute an average of these volumes. GTE shall apply the appropriate average revenue per message ("ARPM") provided by GST to the estimated message volume to arrive at the estimated lost revenue.
- 6.1.6.5 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.
- 6.1.6.6 If the loss occurs on a weekday that is a holiday (except Christmas & Mothers Day), GTE shall use volumes from the two (2) preceding Sundays.
- 6.1.6.7 If the loss occurs on Mother's Day or Christmas Day, GTE shall use volumes from that day in the preceding year multiplied by a growth rate specified by GST.

6.1.7 Testing, Changes and Controls

- 6.1.7.1 The Recorded Usage Data, EMR format, content, and transmission process shall be tested as agreed to by the Parties.
- 6.1.7.2 Interface Testing: The purpose of this test is to ensure that the usage records can be sent by GTE to GST and can be accepted and processed by GST. GTE shall provide a test file to GST's designated Regional Processing Center ("RPC") in the format that shall be used for live day-to-day processing. The file shall contain all potential call types. GST shall review the file and verify that it conforms to its data center requirements. GST shall notify GTE in writing whether the format is acceptable. GST shall also provide GTE with the agreed-upon control reports as part of this test.
- 6.1.7.3 Operational Test: The purpose of this test is to ensure that volumes of usage in consecutive sequence can be extracted, distributed, and processed by GTE and GST.
- 6.1.7.4 For testing purposes GTE shall provide GST with GTE recorded, unrated test data. GST shall provide GTE with the message validation reports associated with test usage.
- 6.1.7.5 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 this Agreement.
- 6.1.7.6 Breakdowns which impact the flow of usage between GTE and GST 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 GST and GTE.

6.1.7.7 GTE Software Changes:

- 6.1.7.7.1 When either Party plans to introduce any software changes which impact the format or content structure of the usage data feed to either Party, designated GTE personnel shall notify the opposite Party no less than one hundred twenty (120) calendar days before such changes are implemented.
- 6.1.7.7.2 GTE shall communicate the projected changes to the appropriate groups in GST so that potential impacts on GST processing can be determined.
- 6.1.7.7.3 GST personnel shall review the impact of the change on the entire control structure and the Post Conversion Test Plan, herein. GST shall negotiate any perceived problems with GTE and shall arrange to have the data tested utilizing the modified software.
- 6.1.7.7.4 If it is necessary for GTE to request changes in the schedule, content or format of usage data transmitted to GST, GTE shall notify GST.

6.1.7.8 GST Requested Changes:

- 6.1.7.8.1 GST may request changes in the schedule, content, format of the usage data transmitted from GTE, as deemed necessary by GST.
- 6.1.7.8.2 When the negotiated changes are to be implemented, GST and/or GTE shall arrange for testing of the modified data in a Post Conversion Test Plan designed to encompass all types of changes to the usage data transferred by GTE to GST and the methods of transmission for that data.

6.1.7.9 GTE System Change Description:

- 6.1.7.9.1 For a GTE system change, GTE shall provide GST with an overall description of the change, stating the objective and a brief explanation of the reasons for the change.
- 6.1.7.9.2 During the initial negotiations regarding the change, GTE shall provide a list of the specific records and/or systems impacted by the change to designated GST personnel.

6.1.7.9.3 GTE shall also provide GST a detailed description of the changes to be implemented. It shall include sufficient detail for designated GST personnel to analyze and estimate the effects of the changes and to design tests to verify the accuracy of the implementation.

6.1.7.10 Change Negotiations:

- 6.1.7.10.1 GST shall be notified, in writing, of all proposed negotiations initiated by GTE. In turn, GST shall notify GTE, in writing, of proposed change negotiations initiated by GST.
- 6.1.7.10.2 After formal notification of planned changes, whether originated by GTE or GST, designated GST personnel shall schedule negotiation meetings, as required, with designated GTE personnel. The first meeting should produce the overall change description (if not previously furnished) and the list of records and/or systems affected.
- 6.1.7.10.3 In subsequent meetings, GTE shall provide the detailed description of changes to be implemented. After reviewing the described changes, designated GST personnel shall negotiate a detailed test procedure with GTE.
- 6.1.7.11 Changes to controls: The Parties shall mutually negotiate to the control structure process as outlined below in Sections 6.1.7.12 and 6.1.7.13.
- 6.1.7.12 Verification Of Changes Based on the detailed description of changes furnished by GTE, GST and GTE personnel shall:

Determine the type of change(s) to be implemented.

Develop a comprehensive test plan.

Negotiate scheduling and transfer of modified data with GTE.

Negotiate testing of modified data with the appropriate GST RPC.

Negotiate processing of verified data through the GST billing system with the RPC.

Arrange for review and verification of testing with appropriate GST groups.

Arrange for review of modified controls, if applicable.

6.1.7.13 Introduction of Changes - When all the testing requirements have been met and the results reviewed and accepted, designated GST and GTE personnel shall:

Negotiate an implementation schedule.

Verify the existence of a contingency plan with the appropriate GST personnel.

Arrange for the follow-up review of changes with appropriate GST personnel.

Arrange for appropriate changes in control program, if applicable. Arrange for long-term functional review of impact of changes on the GST billing system, i.e., accuracy, timeliness, and completeness.

6.2 Information Exchange and Interfaces

6.2.1 Core Billing Information

- 6.2.1.1 Recorded Usage Data all intraLATA toll and local usage. GTE shall provide GST with unrated EMR records associated with all intraLATA toll and local usage which they record on GST's behalf. Any Category, Group and/or Record types approved in the future for GTE shall be included if they fall within the definition of local service resale. GST shall be given notification thirty (30) days prior to implementation of a new type, category and/or record.
- 6.2.1.2 GTE shall provide rated EMR records only when explicit consent for sending such records has been obtained from GST. The following records shall be forwarded to GST for billing by GTE:

Category 01	Operator handled, person to person, collect calls, bill to third number calls and SSP record queries which are originated from another ILEC or CLEC subscriber and are recorded and rated by the same ILEC or CLEC but will be billed to an GST subscriber
Category 03	Credit & adjustments
Category 41	Subscriber credit

- 6.2.1.3 All messages recorded by GTE are to be transmitted to GST. GTE recorded usage includes all usage by GST Subscribers.
- 6.2.1.4 Data Delivery Schedules: Data shall be delivered to GST by GTE daily (Monday through Friday, Saturday where applicable per GTE processing schedule), unless otherwise negotiated. GST and/or GTE Data Center holidays are excluded. GTE and GST shall exchange schedules of designated Data Center holidays.

6.2.1.4.1 Upon GST's request, the Parties shall develop a process to exchange Bill Name and Address ("BNA") information.

6.2.2 Product/Service Specific

6.2.2.1 GTE shall provide a Specialized Service/Service Provider Charge record to support the Special Features Star Services if these features are part of GTE's offering.

6.2.3 Emergency Information

6.2.3.1 GTE shall provide the transport facility for transmitting usage and billing data between GTE location and the GST location. GTE shall transmit 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, GTE shall contract for a courier service to transport the data via tape.

6.2.3.2 GTE shall comply with the following standards when emergency data is transported to GST on tape or cartridge via a courier. The data shall be in fixed or variable block format as specified by GST and:

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 shall be used. They consist of a

single volume label and two sets of header and

trailer labels.

6.2.4 Rejected Recorded Usage Data

6.2.4.1 At the discretion of GST, any messages that cannot be rated and/or billed by GST may be returned to GTE via Connect: Direct. Returned messages shall be sent directly to GTE in EMR format. Standard EMR return codes shall be utilized.

6.2.4.2 GTE must return EMR/EMI records to IXCs with the OBF standard message reject code which indicates that GTE no longer serves the end user and which includes the OCN/Local Service Provider ID of the new LEC/Reseller serving the end user.

6.2.4.3 Rejected messages or invoices shall be returned to GST in accordance with procedures and timeframes already established between GTE and GST.

6.2.5 Interfaces

- 6.2.5.1 GTE, at no cost to GST, shall transmit formatted Recorded Usage Data to GST via Connect: Direct as designated by GST.
- 6.2.5.2 GST shall notify GTE of resend requirements if a pack or entire dataset must be replaced due to pack rejection, damage in transit, dataset name failure, etc.
- 6.2.5.3 Critical edit failure on the Pack Header or Pack Trailer records shall result in pack rejection (e.g., detail record count not equal to grand total included in the pack trailer). Notification of pack rejection shall be made by GST within one (1) business day of processing. Rejected packs shall be corrected by GTE and retransmitted to GST within twenty-four (24) hours or within an alternate timeframe negotiated on a case by case basis.
- 6.2.5.4 A pack shall contain a minimum of one (1) 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 (1) pack. GTE shall provide GST one (1) dataset per sending location, with the agreed upon RAO/OCN populated in the Header and Trailer records.

6.2.6 Formats & Characteristics

- 6.2.6.1 Rated in collect messages should be transmitted via the Connect: Direct and can be intermingled with the unrated messages. No special packing is needed.
- 6.2.6.2 EMR: GTE shall provide Recorded Usage Data in the EMR format and by category, group and record type, and shall be transmitted, via a direct feed, to GST. The following is a list of EMR records that GST can expect to receive from GTE:

Header Record 20-21-01 Trailer Record 20-21-02

Detail Records* 01-01-01, 06, 08, 09, 14, 17, 18, 31, 32, 35, 37,

80, 81, 82,10-01-01, 06, 08, 09, 14, 17, 18, 31, 32,

35, 37

Credit Records

03-01-01, 06, 08, 09, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82

Rated Credits

41-01-01, 06, 08, 09, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82

Cancel Records

51-01-01, 06, 08, 09, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82

Correction Records

71-01-01, 06, 08, 09, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82

- 6.2.6.3 GTE shall comply with the most current version of Bellcore standard practice guidelines for formatting EMR records.
- 6.2.6.4 The Interfacing Bell RAO, OCN, and Remote Identifiers shall be used by GST to control invoice sequencing and each shall have its own invoice controls. The OCN shall also be used to determine where the message returns file, containing any misdirected and unguidable usage, shall be sent.
- 6.2.6.5 The file's Record Format (RECFM) shall be Variable Block or fixed as negotiated, Size and the Logical Record Length (LRECL) shall be as specified by GST.
- 6.2.6.6 Initially, GTE may elect not to comply with specific sorting requirements. However, GST may elect to require GTE to sort PACKS in accordance with GST specifications at a later date.
- 6.2.6.7 GTE shall transmit the usage to GST using dataset naming conventions requested by GST.

6.2.7 Controls

- 6.2.7.1 GST shall test and certify the Connect: Direct interface to ensure the accurate receipt of Recorded Usage Data.
- 6.2.7.2 Header and trailer records shall be populated in positions 13-27 with the following information:

<u>Position</u>	
13-14	Invoice numbers (1-99)
15-16	Bell Co. ID number
17-19	Interfacing Bell RAO Code

^{*}Category 01 is utilized for Rated Messages; Category 10 is utilized for Unrated Messages. Category 10 records are to have indicator 13 populated with a value of 5.

20-23 GST OCN - value 7229 24-27 Reseller OCN

The trailer grand total record count shall be populated with total records in pack (excluding header & trailer).

- 6.2.7.3 Control Reports: GST accepts input data provided by GTE in EMR format in accordance with-the requirements and specifications detailed in this Section 6. In order to ensure the overall integrity of the usage being transmitted from GTE to GST, data transfer control reports shall be required. These reports shall be provided by GST to GTE on a daily or otherwise negotiated basis and reflect the results of the processing for each pack transmitted by GTE.
- 6.2.7.4 Control Reports Distribution: Since GTE is not receiving control reports, dataset names shall be established during detailed negotiations.
- 6.2.7.5 Message Validation Reports: GST shall provide the following once (1) per day (or as otherwise negotiated) Message Validation reports to the designated GTE System Control Coordinator. These reports shall be provided for all data received within GTE Local Resale Feed and shall be transmitted Monday through Friday.
- 6.2.7.6 Incollect Pack Processing: This report provides vital statistics and control totals for packs rejected and accepted and dropped messages. The information is provided in the following report formats and control levels:

GTE Name

Reseller Total Messages processed in a pack
Packs processed shall reflect the number of messages initially erred
and accepted within a pack
Reseller Total Packs processed

6.2.7.7 GST requires information on a subscriber's selection of billing method, special language billing, and other billing options.

6.3 Standards

- 6.3.1 When requested by GST for security purposes, GTE shall provide GST 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.
- 6.3.2 GTE shall include the Working Telephone Number (WTN) of the call originator on each EMR call record.

- 6.3.3 End user subscriber usage records and station level detail records shall be in packs in accordance with EMR standards.
- 6.3.4 GTE shall provide Recorded Usage Data to GST on a schedule to be determined by the Parties once a day three hundred sixty-five (365) days a year, as designated by GST. GTE shall provide to GST the Recorded Usage Data not more than twenty-four (24) hours after termination of the call for which usage data is to be provided.
- 6.3.5 GTE shall segregate and organize the Recorded Usage Data in accordance with GST's instructions.

6.4 Performance Measurements

- 6.4.1 When notified by GST that a subscriber has changed his/her PIC only from one interexchange carrier to another carrier, GTE shall provision the PIC only change and convey the confirmation of the PIC change via the work order completion feed.
- 6.4.2 Timeliness: GTE shall mechanically transmit, via Connect: Direct, all usage records to GST's Message Processing Center once per day.
- 6.4.3 Completeness: GTE shall provide all required Recorded Usage Data and ensure that it is processed and transmitted within fifteen (15) days of the message create date.
- 6.4.4 Data Packs Accuracy: GTE shall transmit to GST all packs error free in the format agreed upon.
- 6.4.5 Recorded Usage Data Accuracy: GTE shall ensure that the Recorded Usage Data is transmitted to GST 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 GTE as a Modification Request ("MR").
- 6.4.6 Usage Inquiry Responsiveness: GTE shall respond to all usage inquiries. GTE will provide status reports until the request for information is satisfied.
- 6.4.7 File Transfer Accuracy: GTE shall initiate and transmit all files error free and without loss of signal.

6.5 Reporting

6.5.1 GTE shall agree to develop reports to be used for local usage data performance measurement within sixty (60) days of the Effective Date of this Agreement.

7. Maintenance

7.1 General Requirements:

- 7.1.1 GTE shall provide repair, maintenance, testing, and surveillance for all local Telecommunication Services in accordance with the terms and conditions of this Agreement. GTE shall provide repair and maintenance for all unbundled Network Elements and Combinations in accordance with the terms and conditions of this Agreement.
 - 7.1.1.1 During the term of this Agreement, GTE shall provide necessary maintenance business process support as well as those technical and systems interfaces required to enable GST to provide at least the same level and quality of service for all services for resale, functions, features, capabilities and unbundled elements or combinations of elements as GTE provides itself, its subscribers any of its Affiliated or subsidiaries or any other entity. GTE shall provide GST with the same level of maintenance support as GTE provides itself in accordance with standards and performance measurements that are at least equal to the standards and/or performance measurements that GTE uses and/or which are required by law, regulatory agency, or by GTE's own internal procedures. These standards shall apply to the quality of the technology, equipment, facilities, processes, and techniques (including, but not limited to, such new architecture, equipment, facilities, and interfaces as GTE may deploy) that GTE provides to GST under this Agreement.

7.1.1.2 Single Point of Contact ("SPOC") for Maintenance

- 7.1.1.2.1 GTE shall provide a SPOC for all activities involved in the maintenance and repair of GTE services or facilities provided pursuant to this Agreement.
- 7.1.1.2.2 The SPOC shall provide to GST a toll-free nationwide telephone number answered by competent, knowledgeable personnel dedicated to GST servicing matters and trained to answer questions and resolve problems in connection with the maintenance of unbundled Network Elements, features, functions, capabilities, and resale services.

- 7.1.1.2.3 GTE shall provide, as requested by GST through the SPOC, maintenance support in the form of dispatch, test, and repair capability twenty-four (24) hours a day.
- 7.1.1.3 The maintenance operations support systems which GTE will use for GST are essentially the same as those GTE uses to provide its own local repair service. If GST requires maintenance for its local service customers, GST will initiate a request for repair (sometimes referred to as a "trouble report") by calling the SPOC (GTE's designated Customer Care Repair Center). During this call, GTE service representatives will verify that the end-user is an GST customer and will then obtain the necessary information from GST to process the trouble report. While the GST representatives are still on the line, GTE personnel will perform an initial analysis of the problem and remote line testing for resale services. If engineered services are involved, the call will be made to the GTE Special Services Control Center ("SSCC") for handling. If no engineering is required and the line testing reveals that the trouble can be repaired remotely, GTE personnel will correct the problem and close the trouble report while GST representatives are still on the line. If on-line resolution is not possible, GTE personnel will provide GST representatives a commitment time for repair and a trouble ticket number, and GTE personnel then will enter the trouble ticket into the GTE service dispatch queue. GST's repair service commitment times will be within the same intervals as GTE provides to its own end users.
- 7.1.1.4 GTE shall provide GST maintenance dispatch personnel Monday through Friday, 8 a.m. 5 p.m. (local time), excluding holidays, on the same schedule that GTE's provides its own subscribers.
- 7.1.2 GST shall handle all interaction with GST subscribers including all calls regarding service problems, and notifying the subscriber of technician visit scheduling, trouble status and resolution.
- 7.1.3 GTE shall cooperate with GST to meet maintenance standards for all Telecommunications Services, unbundled Network Elements and Combinations ordered under this Agreement. Such maintenance standards shall include, without limitation, standards for testing, network management, and notification of upgrades as they become available.
- 7.1.4 All GTE employees or contractors who perform repair service for GST subscribers shall follow procedures developed specifically for communications with CLEC subscribers. At a minimum, these procedures and protocols shall ensure that: (1) GTE employees or contractors shall perform repair service that is at least equal in quality to that provided to GTE subscribers; (2) trouble calls from GST subscribers shall receive response time priority that is at least equal to that of GTE

subscribers and shall be processed in the dispatch queue along with GTE trouble calls in the order they were filed (first in, first out), with priority given to out-of-service conditions.

- 7.1.5 GTE shall provide GST with scheduled maintenance, including, without limitation, required and recommended maintenance intervals and procedures, for all Telecommunications Services, Network Elements and Combinations provided to GST under this Agreement equal in quality to that currently provided by GTE in the maintenance of its own network.
 - 7.1.5.1 GTE shall provide GST at least sixty (60) days advance notice, or notice upon the date it becomes known to GTE, of any scheduled maintenance activity which GTE should reasonably expect would impact GST's subscribers including a list of all services, elements, features, functions, and capabilities which may be impacted by GTE maintenance activities.
 - 7.1.5.2 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.
- 7.1.6 GTE shall notify GST of all non-scheduled maintenance, testing, monitoring, and surveillance activity to be performed by GTE on any Network Element, including, without limitation, any hardware, equipment, software, or system, providing service functionality which may potentially impact GST subscribers.
 - 7.1.6.1 GTE shall provide the maximum advance notice of such non-scheduled maintenance and testing activity possible, under the circumstances; but in no case shall notice be given to GST after the work has started to take place.
 - 7.1.6.2 GTE shall provide emergency maintenance as promptly as possible to maintain or restore service and shall advise GST promptly of any such actions it takes.
- 7.1.7 GTE shall provide GST a detailed description of any and all emergency restoration plans and disaster recovery plans which are in place during the term of this Agreement. Such plans shall include, at a minimum, the following: (i) provisions for immediate notification to GST of the existence, location, and source of any emergency network outage potentially affecting an GST subscriber; (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 GST with current information relating to the status of restoration efforts and problem resolution during the restoration process; (iv) methods and procedures for reprovisioning of all Telecommunications Services and Network Elements or Combinations after initial restoration, (v) equal priority, as between GST subscribers and GTE subscribers, for restoration efforts, consistent with FCC Service Restoration guidelines, including, without limitation, deployment of repair personnel, and access to spare parts and components, and (vi) 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.

- 7.1.7.1 For purposes of this subsection 7.1, an emergency network outage is defined as 5,000 or more blocked call attempts in a ten (10) minute period for all subscribers in a single exchange.
- 7.1.8 The Parties agree to refer all misdirected calls from one Party's subscribers requesting repair to a toll-free, trouble handling number routed to a trouble center of the other Party.
- 7.1.9 GTE shall inform GST of repair completion and trouble reason as soon as GTE completes restoration of Network Elements, or Combinations, and any other trouble reports by GST. Notification should be provided via electronic interface. The report shall not be considered closed until such notification is made. GST will contact its subscriber to determine if repairs were completed and confirm the trouble no longer exists. Notwithstanding the above, during an interim period prior to implementation of an electronic interface, the following notification procedure will be followed:
 - 7.1.9.1 Trouble reports in the dispatch queue will be transmitted electronically to GTE service technicians who will repair the service problems and clear the trouble reports. For cleared GST trouble reports, GTE service technicians will make a telephone call to GST directly to clear the trouble ticket. GTE service technicians will make the confirmation call to the telephone number provided by GST. After four (4) rings, if unanswered by GST, the call will be transferred to voicemail.
- 7.1.10 GTE and GST shall mutually develop escalation procedures to be followed if, in GST's judgment, any performance standard defined in this Agreement is not met for any individual trouble report. The escalation procedures to be provided shall include names and telephone numbers of GTE management personnel who are responsible for maintenance issues and who will be contacted when a trouble condition is escalated.
- 7.1.11 Dispatching of GTE technicians to GST subscriber premises shall be accomplished by GTE pursuant to a request received from GST. If no trouble is

found, GTE will assess the appropriate dispatch charge to GST. GST shall be able to schedule maintenance appointments in half-day intervals where possible. The electronic interface established pursuant to Subsection 7.2 shall provide the capability of allowing GST to receive trouble reports, analyze and isolate the trouble, determine whether it is necessary to dispatch a service technician to the subscriber's premises, and verify any actual work completed on the subscriber's premises.

- 7.1.12 During contact with GST customers, GTE repair personnel shall indicate they are performing services on behalf of GST.
 - 7.1.12.1 If the customer is not at the premises at the time that the GTE technical representative is at the premises, GTE agrees to deliver generic material documents to the customer, and the technical representative will write GST's name on the document or material left for the customer.
 - 7.1.12.2 GTE personnel acting on behalf of GST will not discuss, provide or leave information or materials relative to GTE's services or products.
- 7.1.13 GTE shall supply GST with a unique number to identify each GST initial trouble report opened.
- 7.1.14 All GST subscribers shall be able to continue to use the established local dialing protocol to access the repair center. GTE agrees to refer all misdirected calls from GST's subscribers requesting repair to a toll-free, trouble handling number routed to the appropriate GST trouble center.
- 7.1.15 For reopened trouble reports GST shall have the ability to escalate repair service requests.
- 7.1.16 GTE shall notify GST via electronic interface upon completion of trouble report. The report shall not be considered closed until such notification is made. GST will contact its subscriber to determine if repairs were completed and confirm the trouble no longer exists.
- 7.1.17 Additional Unbundling Requirements
 - 7.1.17.1 When trouble is reported by a subscriber served through unbundled Network Elements, GST will test its network to identify any problems. If no problems are identified with the GST network, GST will open a trouble report with GTE. GTE shall then test its portion of the network and perform repairs as required in the timeframes set forth below in this Agreement.

- 7.1.17.2 GST will coordinate combined testing or repair activities until trouble is resolved. GTE shall provide repair updates to GST.
- 7.2 Systems Interfaces and Information Exchanges
 - 7.2.1 GTE shall cooperate with GST to establish real-time, electronic interface by GST to GTE's maintenance systems and databases. This interface shall be seamless and transparent to GST personnel working through GST's systems.
 - 7.2.1.1 The electronic bond will be a system to system connection with immediate update capability. In no way shall this interface cause GST personnel to use GTE systems via remote hook up or any other means of access.
 - 7.2.1.2 This interface shall allow GST personnel to perform the following functions for GST subscribers: (i) enter trouble reports in the GTE maintenance systems for an GST Subscriber, (ii) retrieve and track current status on all GST subscriber trouble report; (iii) receive "estimated time to repair" ("ETTR") on a real-time basis; (iv) receive immediate notification in the event a repair person is unable to be present for, or anticipates missing, a scheduled repair appointment; (v) 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 subscriber, per event); and (vi) receive automated notification of case closure.
 - 7.2.1.3 Automated interfaces must be provided into a centralized operations support systems data base for real-time network monitoring to proactively identify potential service degradation. Such systems must monitor and report on the integrity of the GTE network, isolate trouble and initiate repair operations, test individual unbundled loops and generate maintenance and repair notices that impact any end user's ability to complete calls. Ongoing maintenance practices on unbundled loops must equal or exceed the practices employed by the GTE for facilities used to provide services for resale.
 - 7.2.1.4 GTE agrees to develop and implement, as soon as possible, but not later than January 1, 1997, the electronic interfaces described above.
 - 7.2.2 GTE agrees that GST may report troubles directly to a single GTE Repair/Maintenance Center for both residential and business subscribers unless otherwise agreed to by GST.
 - 7.2.3 GTE shall perform all testing for Resale Services.

- 7.2.3.1 GTE shall provide test results to GST, if appropriate, for trouble clearance. In all instances, GTE will provide GST with the disposition of the trouble.
- 7.2.3.2 If GTE initiates trouble handling procedures it will bear all costs associated with that activity. If GST requests the trouble dispatch then GST's subscriber will bear the cost.
- 7.2.4 GTE shall provide to GST the ability to obtain the status on open maintenance trouble reports via telephone or by another interface as GST may agree. GTE agrees to provide the status of residence and small business trouble reports upon GST's request.
- 7.2.5 GTE agrees to provide to GST the status for open maintenance trouble reports for large business subscribers anytime the status of the trouble report changes or at GST's request.
- 7.2.6 GTE agrees that GST may call GTE to verify central office features and functions as they relate to an open trouble report. GTE agrees to work with GST on the initial trouble report to isolate the cause of the trouble and, where possible, resolve the feature/function related trouble at that time.
- 7.2.7 GTE agrees to proactively advise GST of any central office failure that is known at the time of any inquiry or trouble report. GTE agrees to continue to work with GST toward implementing a process to meet GST's requirements for notification of switch failures as soon as possible.
- 7.2.8 GTE agrees to provide an Estimated Time To Repair ("ETTR") on all residence and small business trouble reports.
- 7.2.9 GTE agrees to develop, with GST's cooperation, mutually acceptable work center methods and procedures for interim and final interfaces for each service within thirty (30) days the Effective Date of this Agreement and as required on a going forward basis.

7.3 Standards

- 7.3.1 Maintenance charges for premises visits by GTE employees or contractors shall be billed by GST to its subscriber.
 - 7.3.1.1 GTE employees or contractors shall present the subscriber with an unbranded 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.

- 7.3.1.2 If additional work is required, GTE employees or contractors shall call GST from subscriber premises so that GST can schedule a new appointment with GTE and subscriber at the same time.
- 7.3.1.3 The GTE employees or contractors shall obtain the subscriber's signature upon said form, and use the signed form to input maintenance charges into the GTE repair and maintenance database (accessible by way of electronic interface). Whenever necessary to establish to new service, these charges shall include any charges for inside wiring work by GTE employees or contractors, provided on behalf of GST.
- 7.3.2 GTE agrees to work with GST to support expeditious development of an industry standard trouble report entry format and agrees to implement such standard within ninety (90) days after final resolution by the Network Operation Forum ("NOF"), unless otherwise mutually agreed.

7.4 Performance and Reporting

7.4.1 Repair Bureau Reporting

- 7.4.1.1 Until electronic interface exists, GTE agrees that GST may report troubles to GTE's repair bureau by telephone and or dial up modem at GST's discretion. GTE repair bureau shall conform to and service quality standards when providing repair and maintenance to GST and GST subscribers under this Agreement, to levels it provides itself.
- 7.4.1.2 For maintenance and trouble management purposes, TSP and ESL outages shall be designated for repair at the highest priority one hundred percent (100%) of the time.
- 7.4.1.3 To support unbundling processes, GTE agrees to support trouble sectionalization and resolution and to respond to GST requests for assistance.

7.4.2 Quality

- 7.4.2.1 The GTE repair bureau, including the electronic interface to be established pursuant to this Section, shall be on-line and operational twenty-four (24) hours per day, seven (7) days per week.
- 7.4.2.2 The GTE repair bureau shall provide to GST the "estimated time to restore," on the same basis GTE provides itself.

7.4.3 Reporting

7.4.3.1 Within ninety (90) days after the Effective Date of this Agreement, the Parties shall develop a process by which GTE shall provide to GST exception reporting which communicates planned outages, unplanned outages and restorations which may or have impacted GST's customers or unbundled elements.

8. Service Standards and Reporting

8.1 Performance Measurements and Reporting

8.1.1 Cycle Time Measurements

- 8.1.1.1 The intervals for measuring GTE Service Order performance under this Agreement shall be that which GTE provides itself and others. The Parties may mutually agree to modify such measurements from time to time.
- 8.1.1.2 For non-electronic bonding ordering, GTE shall provide an end-of-day order summary via fax.
- 8.1.1.3 Subsequent to an order which has been initially submitted by GST, GST may require a new/revised due date that is earlier than the minimum defined interval.

8.1.2 Quality Measurements

- 8.1.2.1 GTE ordering, provisioning and maintenance functions performed for GST shall meet the Commission's rules governing service specifications for services provided at the interim rates, unless otherwise specified by the Commission.
- 8.1.2.2 GST may request a higher level of service from GTE under the Bona Fide Request process as defined in Article III of this Agreement.

8.1.3 Reporting

- 8.1.3.1 GTE shall provide, at a minimum, the following comparative reports to GST, both for GST orders and for GTE orders, presented by State and central office, and issue such reports on a monthly basis with daily informational detail:
 - 8.1.3.1.1 Total number and percent of missed appointments.

- 8.1.3.1.2 Total number and percent of missed firm order confirmation dates.
- 8.1.3.1.3 Total number and percent of rejected orders.
- 8.1.3.1.4 Total number and percent of late rejection notifications.
- 8.1.3.2 GST may, at its discretion, request additional and/or modified reporting as business needs demand.

1. General Business Requirements	1
2. Pre-Ordering	
3. Ordering and Provisioning	7
4. Connectivity Billing and Recording	
5. Information Exchange and Interfaces	
6. Provision Of Customer Usage Data.	
7. Maintenance	37
8. Service Standards and Reporting	

ARTICLE IX

COLLOCATION

1. General Terms

- 1.1 The rates, terms and conditions of collocation shall be subject to the tariff filed by GTE with the Commission in accord with the Arbitration Award (the "Washington Tariff"). The Parties agree that the terms and conditions set forth in this Article shall apply to both physical and virtual collocation in addition to the terms and conditions of the Washington Tariff.
- 1.2 Collocation Space. GTE shall provide space, as requested by GST, to meet GST's needs for collocation of equipment necessary for interconnection or for access to unbundled Network Elements. GTE shall provide virtual collocation where physical collocation is not practical for technical reasons or because of space limitations. GTE may, in some cases, deny a particular collocation request entirely, if GTE demonstrates to the Commission that physical collocation or virtual collocation are not technically feasible or not possible due to space limitations. GTE shall relinquish any space held for its future use before denying virtual collocation.
- 1.3 GTE may only reserve space on the same terms that it allows GST to reserve space. The Party seeking to reserve space must establish specific planned space use, and GTE has the burden of establishing specific planned use if it rejects GST's request.
- 2. Requests For Collocation Space. GST will complete a written collocation request for each space requested. Within ten (10) days from receipt of GST's request, GTE will provide confirmation of space availability (including availability of virtual collocation where physical collocation is not available) and availability of conditioned space requiring buildout, and inform GST as to whether environmental conditioning must take place. GTE will propose a written estimate within thirty (30) days, as to the cost of any environmental conditioning required. If GST elects to proceed, the Parties will agree upon the date for an initial implementation meeting related to such request (the "GTE/Customer Meeting"). GTE shall provide a written confirmation promptly after providing verbal confirmation. If GTE determines that environmental conditioning must take place, GTE will inform GST of the cost of such environmental conditioning within a reasonable amount of time following the verbal confirmation. When GST receives notice of the cost of environmental conditioning, GST may elect not to occupy the proposed collocation space.
 - 2.1 Information Provided at GTE/Customer Meeting. When GST orders collocated space, GTE and GST will hold a GTE/Customer meeting in accord with the applicable State tariff. At such meeting, GTE will provide information specified in the State tariff as well as drawings of GTE's central office facility as may be necessary to adequately depict GST's proposed collocation space. GTE shall also provide the following:

Art IX - 1

- 2.1.1 Detailed Telephone Equipment drawings depicting the exact location, type, and cable termination requirements (i.e., connector type, number and type of pairs, and naming convention) for GTE Point of Termination Bay(s).
- 2.1.2 Detailed drawings depicting the exact path, with dimensions, for GST outside plant fiber ingress and egress into GST collocated space at the time of the implementation meeting for each specific collocation site. Such path and any areas around it in which GST must work to perform installation shall be free of friable asbestos, lead paint (unless encapsulated), radon and other health or safety hazards.
- 2.1.3 Detailed power cabling connectivity information, including the sizes and number of power feeders to GST at the time of the implementation meeting for each specific collocation site.
- 2.1.4 Additional GTE information:
 - 2.1.4.1 Work restriction guidelines.
 - 2.1.4.2 GTE or industry technical publication guidelines that impact the design of GTE collocated equipment.
- 2.1.5 GTE contacts (names and telephone numbers) for the following areas:

Engineering
Physical & Logical Security
Provisioning
Billing
Operations
Site and Building Managers
Environmental and Safety

- 2.2 Escalation process for the GTE employees (names, telephone numbers and the escalation order) for any disputes or problems that might arise pursuant to GST's collocation.
- 2.3 Additional Central Office Space. GTE will notify GST if it plans to build an addition to a central office where GST has collocated facilities, if such addition would result in a material increase of space available for collocation.
- 2.4 GTE shall take collocator demand into account when renovating existing facilities and constructing or leasing new facilities. Should GST submit to GTE a two (2) year forecast for space planning for collocated facilities in a central office, GTE will, in good faith, consider and discuss such forecast with GST when considering space planning or utilization decisions for such central office; provided, however, that any final space planning or utilization decision shall be made by GTE in its sole discretion.

Art IX - 2

- 2.5 Subject to technical feasibility and space limitations, GTE will make available such intraoffice facilities as may be necessary to accommodate projected volumes of GST traffic.
- 3. <u>Connection to Customer Loops and Ports</u>. GTE shall provide, at the applicable tariffed rate, intraoffice facilities (e.g., DS0, DS1, DS3, OC3, OC12, OC48, and STS-1 terminations) as requested by GST to meet GST's need for placement of equipment or interconnection.
- 4. Connection To Other Collocated Carrier. GST may interconnect with other carriers collocated at a GTE central office at which GST has collocated facilities; provided, however, that GST and such other carriers must be collocated at the GTE central office for the primary purpose of interconnecting with GTE or accessing GTE's unbundled Network Elements. GST shall request facilities necessary for cross-connection using an ASR. GTE shall provide the requested facilities by the customer desired due date specified by the ASR. If GTE determines that the cross-connection cannot be provided by the customer desired date because of the characteristics of the cross-connection requested or the central office, GTE shall inform GST and provide the cross-connection facilities within a reasonable period of time following the customer desired date but in no case later than thirty (30) days from the requested date. GTE will provide this cross connection at the prices set forth in Appendix C.
- 5. Approved Equipment and Vendor. GST shall be allowed to install equipment of its choice if such equipment meets Bellcore specifications and is provided by a GTE approved vendor. Such equipment shall include Digital Loop Carrier equipment. Remote Switching Modules ("RSMs") may also be placed in the collocation site. GST may also use approved vendors of its choice to maintain and repair equipment within GST's physical collocation space. Approved vendors will, at minimum, be vendors GTE currently approves for its own use. GTE will approve additional vendors provided that the vendors meet Bellcore standards.
 - 5.1 Notwithstanding the above, GST shall not be allowed to collocate customer premise equipment or enhanced services equipment.
- 6. <u>Telephone Service</u>. GTE shall provide basic telephone service with a connection jack as requested by GST from GTE for the collocated space. Upon GST's request and agreement to make reasonable payment for such service, this service shall be available at the GST collocated space on the day that the space is turned over to GST by GTE.
- 7. <u>Intraoffice Diversity</u>. Where available and subject to space and technical feasibility limitations, GTE shall provide ingress and egress of fiber and power cabling to GST collocated spaces at GST's request. Certain charges specific to the cost of cable and cable run would apply. The specific level of diversity required for each collocated space will be provided in the collocation request.
- 8. <u>GST Proprietary Information</u>. Any collocation arrangement shall include provisions for protecting GST's proprietary subscriber information.

- 9. <u>Notification</u>. GTE will give GST forty-eight (48) hours prior written notice via facsimile of the following:
 - 9.1 Instances where GTE or its subcontractors may be performing work in the general area of the collocated space occupied by GST, or in the general area of the AC and DC power plants which support GST equipment, when GTE reasonably believes such work might impact GST traffic. GTE will inform GST by telephone of any emergency related activity that GTE or its subcontractors may be performing in the general area of the collocated space occupied by GST, or in the general area of the AC and DC power plants which support GST equipment when GTE reasonably believes such work might impact GST traffic. Notification of any emergency related activity shall be made immediately prior to the start of the activity so that GST can take any action required to monitor or protect its service.
 - 9.2 Scheduled AC or DC power work or related activity in the collocated facility when GTE reasonably believes such work or related activity might cause an outage or any type of power disruption to GST equipment located in a GTE facility. GTE shall provide GST immediate notification by telephone of any emergency power activity that would impact GST equipment when GTE reasonably believes such work or related activity might cause an outage or any type of power disruption to GST equipment located in a GTE facility.
 - 9.3 Major upgrades to the power plants supporting GST's collocation space. The following shall constitute such major upgrades:
 - 9.3.1 replacement of a rectifier;
 - 9.3.2 addition or replacement of a new fusing module;
 - 9.3.3 addition or replacement of a power distribution unit frame; or
 - 9.3.4 addition or replacement of modular rectifiers.
- 10. Construction of Space. GTE will construct GST's collocation space in compliance with GST's collocation request. GTE shall obtain GST's approval for any deviation from GST's collocation request, such approval not to be unreasonably withheld. GTE agrees to the following terms and conditions regarding construction of collocated space:
 - 10.1 Space will be constructed in 100 square foot increments, and shall be designed so as to prevent unauthorized access.
 - 10.2 A standard 100 square foot cage shall have the following standard features:
 - (a) eight-foot high, nine gauge chain link panels;
 - (b) three of the panels listed at (a) above shall measure eight by ten feet, the fourth panel shall measure eight by seven feet;

- (c) the door to the cage shall measure eight by three feet and shall also consist of nine gauge chain link;
- (d) the cage shall be provided with one padlock set, with GTE retaining one master key;
- (e) one AC electrical outlet;
- (f) one charger circuit system;
- (g) one electrical sub-panel;
- (h) such additional lighting as may be necessary;
- (i) one fire detection requirement evaluation;
- (i) grounding for the cage consistent with COEI.
- 10.3 Modifications to the standard configuration set forth in Section 10.2 can be made on an individual case basis. If modifications are agreed upon and made by the Parties, GTE will work with GST to implement such additional modifications as may be necessary to ensure that GST's collocated space is protected from unauthorized access.
- 10.4 GTE will permit GST to subcontract the construction of the physical collocation cage and its interior with contractors approved by GTE; provided, however, that GTE will not unreasonably withhold approval of contractors. Approval by GTE shall be based on the same criteria it uses in approving contractors for its own purposes.
- 10.5 Intervals for physical collocation shall be a maximum of three (3) months from the date collocation is requested. Virtual collocation will have a maximum construction interval of two (2) months from the date of request. Whenever GTE believes that it cannot meet the specified intervals, GTE will provide GST with a specific time frame for providing the requested collocation and full details as to why it will take longer than the specified intervals. Exceptions to these intervals may be mutually agreed upon for each specific collocation site in advance of or during construction of each specific site.
- 10.6 GTE shall provide positive confirmation to GST when construction of GST collocated space is approximately fifty percent (50%) completed. This confirmation shall also include confirmation of the scheduled completion and turnover dates.
- 10.7 GST and GTE will complete an acceptance walk through of collocated space requested from GTE. Exceptions that are noted during this acceptance walk through shall be corrected by GTE within five (5) business days after the walk through. The correction of these exceptions from the original collocation request shall be at GTE's expense.
- 11. <u>Connection Equipment</u>. GST may provision equipment for the connection of GST termination equipment to GTE equipment using either of the following methods:
 - 11.1 GST may extend an electrical or optical cable from the terminal within GST's collocation cage and terminate that cable at GTE's network.

- 11.2 GST may install a patch panel within its collocation cage and then hand the cabling to GTE to extend to and have GTE terminate that cable at GTE's network.
- 12. <u>Security of and Access to GST Collocation Space</u>. Subject to Article XIII, GTE shall exercise the same degree of care that it provides itself with respect to GST's collocation space to prevent harm or damage to GST or its employees, agents or subscribers, or their property. GTE agrees to allow GST's employees and designated agents unrestricted access to GST dedicated space in manned GTE offices twenty-four (24) hours per day each day of the week. GTE may place reasonable security restrictions on access by GST's employees and designated agents to the GST collocated space in unmanned GTE offices. Notwithstanding, GTE agrees that such space shall be available to GST's employees and designated agents twenty-four (24) hours per day each day of the week provided that GST notifies GTE at least one (1) hour in advance. In no case should any reasonable security restrictions be more restrictive than those GTE places on their own personnel.

13. Environmental Conditions

- 13.1 Within ten (10) business days of GST's request for collocation space, GTE shall provide any information reasonably available to it regarding the environmental conditions of the space provided for placement of equipment and interconnection, including, but not limited to, the existence and condition of asbestos, lead paint, hazardous substance contamination, or radon. Information is considered "reasonably available" under this Agreement if it is in GTE's possession, or the possession of those current or former agents, contractors, employees, lessors, or tenants of GTE's and such possession is known to GTE at the time of the request.
- 13.2 Prior to the GTE/Customer Meeting, GTE will certify and warrant to GST that the given collocation site meets applicable OSHA standards.
- 13.3 If the space provided for the placement of equipment or interconnection contains environmental contamination or hazardous material, particularly but not limited to asbestos, lead paint or radon, which makes the placement of such equipment or interconnection hazardous, GTE shall offer an alternative space, if available, for GST's consideration.
- 13.4 GST shall provide GTE with a list of hazardous materials that are contained in any equipment it places in space provided by GTE prior to placement of the equipment in the space.

14. Power

14.1 Power as referenced in this document refers to any electrical power source supplied by GTE for GST equipment. It includes all superstructure, infrastructure, and overhead facilities, including, but not limited to, cable, cable racks and bus bars. GTE will supply power to support GST equipment at equipment specific DC and AC voltages. At a

Art IX - 6

minimum, GTE shall supply power to GST at parity with that provided by GTE to itself and its Affiliates. If GTE performance, availability, or restoration falls below NEBS standards, GTE shall bring itself into compliance with such standards as soon as technologically feasible.

- 14.2 Central office power supplied by GTE into the GST equipment area shall be supplied in the form of power feeders (cables) on cable racking into the designated GST equipment area. The power feeders (cables) shall efficiently and economically support the requested quantity and capacity of GST equipment. The termination location shall be mutually agreed upon by the Parties at the implementation meeting for each specific collocation site.
- 14.3 GTE shall provide power as requested by GST to meet GST's need for placement of equipment or interconnection.
- 14.4 GTE power equipment supporting GST's equipment shall:
 - 14.4.1 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;
 - 14.4.2 Have redundant power feeds with physical diversity and battery back-up as required by the equipment manufacturer's specifications for GST equipment, or, at minimum, at parity with that provided for similar GTE equipment;
 - 14.4.3 Provide central office ground, connected to a ground electrode located within the GST collocated space, at a level above the top of GST equipment plus or minus 2 feet to the left or right of GST's final request; and
 - 14.4.4 Provide feeder capacity and quantity to support the ultimate equipment layout for GST equipment in accordance with GST's collocation request.
 - 14.4.5 GTE shall, within ten (10) days following the implementation meeting (or within a different, mutually agreed upon time frame decided upon at such meeting):
 - 14.4.5.1 Provide an installation sequence and access that will allow installation efforts in parallel without jeopardizing personnel safety or existing GST services. In the event GTE requires a walk-through after GST's equipment has been installed, GTE must provide forty-eight (48)-hour prior notice;
 - 14.4.5.2 Provide power plant alarms that adhere to Bell Communication Research (Bellcore) Network Equipment-Building System (NEBS) standards TR-EOP-000063;

- 14.4.5.3 Provide cabling that adheres to Bell Communication Research (Bellcore) Network Equipment-Building System (NEBS) standards TR-EOP-000063;
- 14.4.5.4 Provide Lock Out-Tag Out and other electrical safety procedures and devices in conformance with the most stringent of OSHA or industry guidelines.
- 14.4.5.5 When it is technically feasible to provide partitioned monitoring, GTE shall provide upon GST's request, the capability for real-time access to performance monitoring and alarm data that impacts (or potentially may impact) GST traffic. In the interim, GTE shall immediately notify GST if: (1) an alarm condition exists with respect to monitoring of power or (2) if backup power has been engaged for any power supporting GST's equipment.
- 14.4.5.6 Provide documentation received from contractors regarding all contractor bids for any work being done on behalf of GST (this includes, but is not limited to, power supplies, and cage construction).
- 14.4.6 GST may choose to lease unbundled transport from GTE, or from a third carrier, rather than construct to the GTE facility where equipment will be collocated.
- 15. <u>Environmental Support</u>. GTE shall provide adequate lighting, ventilation, power, heat, air conditioning, and other environmental conditions for GST'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 the Parties may agree upon and designate at the time of the implementation meeting. In all events such lighting, ventilation, power, heat, air conditioning and other environmental conditions shall be provided by GTE to GST at parity with that provided by GTE to itself and its Affiliates.
- 16. Access to Ancillary Facilities. GTE shall not unreasonably restrict access to eyewash stations, shower stations, bathrooms, and drinking water within the collocated facility for GST personnel and its designated agents.
- 17. <u>Maintenance of Virtually Collocated Equipment</u>. GTE will maintain GST's virtually collocated equipment in a manner equal to how it maintains its own equipment. Maintenance includes the change out of electronic cards provided by GST and per GST's request.
 - 17.1 Maintenance of Equipment in a Physical Collocation Space. At GST's request, GTE shall provide maintenance services for GST's physically collocated equipment on an individual case basis. The Parties will cooperate to develop mutually acceptable terms, conditions, and procedures for such maintenance.

- 18. <u>Lease</u>. GTE shall lease to GST any space containing physically collocated equipment for the Term of the Agreement. The terms and conditions of the lease are as set forth in this Article.
- 19. <u>Technical References</u>. GTE shall provide collocation in accordance with the technical standards/references in the EIS Tariff and applicable industry standards as updated from time to time.

20. Virtual Collocation

- 20.1 Existing Virtual Collocation. If, on the Effective Date of this Agreement, GST is virtually collocated in a GTE premise, GST may (i) elect to retain its virtual collocation arrangement in that premise or (ii) unless it is not technically feasible or not possible because of space limitations, convert its virtual collocation arrangement at that premise to physical collocation. If GST elects the latter option, GST's request shall be treated as a new physical collocation request and GST shall pay GTE at the rates set forth in Appendix C.
- 20.2 Conversion from Physical to Virtual. Unless it is not technically feasible or not possible because of space limitations, GST may convert a physical collocation arrangement to a virtual collocation arrangement. GST's request to do so shall be treated as a new virtual collocation request and GST shall pay GTE at the rates set forth in Appendix C.

1. General Terms	1
2. Requests For Collocation Space.	1
3. Connection to Customer Loops and Ports	3
4. Connection To Other Collocated Carrier	3
5. Approved Equipment and Vendor.	3
6. Telephone Service.	3
7. Intraoffice Diversity.	3
8. GST Proprietary Information.	3
9. Notification.	4
10. Construction of Space.	4
11. Connection Equipment.	5
12. Security of and Access to GST Collocation Space.	6
13. Environmental Conditions	6
14. Power	6
15. Environmental Support	8
16. Access to Ancillary Facilities.	8
17. Maintenance of Virtually Collocated Equipment	8
18. Lease	9
19. Technical References.	9
20. Virtual Collocation	9

ARTICLE X

RIGHTS OF WAY

1. Rights of Access. GTE shall allow GST space on poles, or in conduits and right-of-way owned or controlled by GTE, at parity with GTE, based upon the same criteria GTE applies to itself. GTE agrees to permit GST to occupy, place and maintain communications facilities within GTE's Poles, ducts, conduits and ROW as GTE may allow pursuant to the Pole Attachment Act and the terms of this Agreement.

2. Definitions

- 2.1 "Poles, ducts, and conduits" refer to all physical facilities owned or controlled, in whole or in part, by GTE to which GTE is required to provide access under the Pole Attachment Act, regulations thereunder, and applicable State law.
- 2.2 A "right of way" or "ROW" refers to legal rights owned or controlled, in whole or in part, by GTE, which provide for access to pathways across public and private property. 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. The existence of a right-of-way is determined by reference to the Pole Attachment Act, the regulations thereunder, and applicable State law.
- 2.3 "GTE's pole(s)" or "GTE pole(s)" means a pole or poles, as described in Section 2.1, solely owned by GTE, jointly owned by GTE and another entity, and space on poles obtained by GTE through arrangements with the owner(s) thereof.
- 2.4 "GTE's conduit(s)" or "GTE conduit(s)" means any reinforced passage or opening in, on, under/over or through the ground capable of containing communications facilities, as described in Section 2.1, solely owned by GTE, jointly owned by GTE and another entity, and space within conduits obtained by GTE through arrangements with the owner(s) thereof.
- 2.5 "Attachments" means the equipment reasonably required by GST to place its cables on GTE's Poles, ducts, conduits and ROW.
- 2.6 "Innerduct," unless otherwise specified or approved by GTE, shall mean a single enclosed raceway 1" or 1-1/4" in diameter (as the case may be), placed within duct and used for housing of communications facilities.
- 2.7 "GST's Facilities" or "Facilities" means all facilities, including, but not limited to, cables, equipment and associated hardware, owned and utilized by GST which occupy an innerduct or are attached to a pole.

Art X -1

- 2.8 "Make-Ready Work" means all work, including, but not limited to, rearrangement, removal, or transfer of existing attachments, placement, repair, or replacement of Poles, ducts, and conduits, or any other changes required to accommodate the GST's Attachments on a pole or in a conduit.
- 2.9 "Manholes" and "handholes" mean subsurface enclosures which personnel may use for the purpose of installing, operating and maintaining communications facilities, including, but not limited to, cable vaults, manholes and handholes.

3. Non-discriminatory Access and Maintenance Spares

- 3.1 GTE shall make Poles, ducts, conduits and ROW owned or controlled in any way, in whole or in part, available to GST upon receipt of a request for use within the time periods in accordance to the terms and conditions provided in this Article X, providing all information necessary to implement such a use and in accordance with the Interconnection Agreement and at least equal to those which it affords itself, its Affiliates and others. Other users of these facilities, including GTE, shall not interfere with the availability or use of the facilities by GST.
- 3.2 GTE shall provide GST equal and non-discriminatory access to Poles, ducts, conduit and ROW and any other pathways on terms and conditions equal to that provided by GTE to itself or to any other party in accordance with industry standards. Further, GTE shall not preclude or delay allocation of these facilities to GST because of potential needs of itself or of other parties. A maintenance spare shall be retained, and such maintenance spare shall be a full conduit.
- 3.3 GTE must provide information to GST about the network guidelines and engineering protocols used by GTE in determining the placement of facilities on poles and in ducts and conduits.
- 4. <u>Grant of License</u>. GTE grants to GST and GST accepts from GTE a non-exclusive license to occupy, place and maintain in a designated space in specified conduits and poles GST's Facilities on the terms and conditions set forth herein.

5. Attachment Requests (ARs)

5.1 Upon execution of this Agreement, GST shall have the right to submit a written Attachment Request ("AR") to GTE specifying the GTE Poles, ducts, conduit and ROW on which it desires to place its Facilities. Each AR shall be in a form specified by GTE, which form may be revised from time to time by GTE at its sole discretion. ARs received by GTE shall be processed on a first come, first served basis. To the extent possible, GTE will advise GST of any other AR received that covers all or part of the Poles, ducts, conduits and ROW included in GST's AR. GTE will determine the availability of space for GST's Facilities on GTE's Poles, ducts, conduits and ROW specified in the AR within

Art X -2

thirty (30) calendar days of the date the AR is received. Upon approval of the AR within such thirty (30) day period, GTE shall return a copy thereof to GST bearing an endorsement acknowledging GTE's authorization and granting the license. All of GST's Facilities placed on GTE's Poles, ducts, conduits and ROW pursuant to an approved AR shall become subject to all of the terms and conditions of this Agreement. GST may submit subsequent ARs as needed for approval by GTE. No facilities of any kind shall be placed on any GTE poles and conduits identified in a AR until that AR has been approved by GTE.

- 5.2 After submittal of an AR, GTE shall, within ten (10) calendar days, notify GST if any poles or conduits included in an AR are owned or controlled by another party such that GST will likely have to obtain some form of approval by that party in order to use the poles or conduit.
- 5.3 GST shall pay GTE a fee for processing an AR to compensate GTE for the general administrative costs as well as the actual engineering costs reasonably incurred. The fee for such costs shall be computed according to the Pole Attachment Act or State law if the State is certified under the Pole Attachment Act.
- 5.4 Upon receiving an approved AR, GST shall have the right, subject to the terms of this Agreement, to place and maintain GST's Facilities described in the AR on the GTE poles and conduits identified therein.
- 5.5 In the event Make-Ready Work is necessary to accommodate GST's Facilities, GTE shall notify GST of such fact and provide GST with an estimate of the total cost of such Make-Ready Work and the timetable for such work upon approval of the AR. Within fifteen (15) days after receiving such notice from GTE, GST shall notify GTE either (i) that GST shall pay all of the costs actually incurred to perform the Make-Ready Work and shall pay the total estimated amount to GTE at least ten (10) days prior to the date the Make-Ready Work is to begin; (ii) that it desires to perform the Make-Ready Work itself or through a contractor from a mutually agreed list of contractors; or (iii) that it desires to withdraw its AR.
- 5.6 At the time of approval of the AR, GTE shall provide any information in its possession or available to it regarding the environmental conditions of the Poles, ducts, conduits or ROW route or location including, but not limited to, the existence and condition of asbestos, lead paint, hazardous substance contamination, or radon. Information is considered "available" under this Agreement if it is in GTE's possession. If the Poles, ducts, conduits or ROW contain such environmental contamination, making the placement of equipment hazardous, GTE shall offer alternate Poles, ducts, conduits or ROW for GST's consideration if such alternatives exist. GTE shall allow GST, at its own cost, to perform environmental site investigations, including, but not limited to, Phase I and Phase II environmental site assessments. In all cases, scope and duration of

environmental site investigations shall be consistent with what is necessary to implement the AR.

- 5.7 After approval of the AR, GST shall have six (6) months to begin attachment and/or installation of its facilities to the Poles, ducts, conduit and ROW. Any such construction, installation or Make Ready shall be completed by the end of one (1) year after approval of the AR. GST shall not be in default of the six (6) month or one (1) year requirement above if such default is caused in any way by any action, inaction or delay on the part of GTE or its Affiliates or subsidiaries.
- 5.8 If GST has not begun placing its Attachments within the six (6)-month period, GST shall so advise GTE with a written explanation for the delay. If GST fails to advise GTE of its delay, or if GST fails to act in good faith by not making a bona fide effort to begin placing its Attachments within the six (6) months prescribed by this Section, the previously approved AR shall be deemed rescinded by GTE and GST shall have no further right to place Attachments pursuant to that AR.

6. Review of GTE Plans and Records

- 6.1 GTE agrees to produce current detailed engineering and other plant records and drawings of Poles, ducts, conduit and ROW, associated with a specific request, as soon as possible which in no case shall exceed five (5) business days following GST's request for access to such engineering, and other plant records and drawings of additional Poles, ducts, conduits and ROW in selected areas as specified by GST. Such information shall be of equal type and quality as that of GTE's own engineering and operations staff. Notwithstanding the above, GTE shall also allow personnel designated by GST to examine such engineering records and drawings, to the extent that such records and drawings are readily available for viewing, at GTE Central Offices and GTE Engineering Offices upon two (2) days notice to GTE. GTE is entitled to recover administrative expenses related to the provision of such records and drawings in accordance with Appendix C.
- 6.2 Inquiry Request. GST shall have the right to submit a written Inquiry request ("Inquiry") to GTE specifying the GTE Poles, ducts, conduit and ROW on which it desires to check the availability without the necessity of submitting an AR. The Inquiry will be on a form specified by GTE, which form may be revised from time to time by GTE at its sole discretion. GTE will determine the availability of space for GST's Facilities on GTE's Poles, ducts, conduits and ROW specified in the Inquiry within thirty (30) calendar days after the date the Inquiry is received. If an AR is submitted within thirty (30) calendar days of the confirmation of space from an Inquiry and if neither GTE nor any other party has submitted an AR to such space within such time, GTE shall process such AR for the same space described in the Inquiry within fifteen (15) calendar days instead of an additional thirty (30) day approval. GST shall pay GTE a fee for processing an Inquiry to compensate GTE for the general administrative costs as well as the actual engineering costs reasonably incurred. The fee for such costs shall be computed according to the Pole

Attachment Act or State law if the State is certified under the Pole Attachment Act. If a submission for an AR is made within thirty (30) days of the Inquiry results, the fee for the AR shall be appropriately reduced.

7. Placement of Attachments

- 7.1 GST shall, at its own expense, place and maintain and replace its Attachments on GTE's Poles, ducts, conduits and ROW in compliance with: any rules or orders now in effect or that hereafter may be issued by any regulatory agency or other authority having jurisdiction.
- 7.2 GST may, at its option, install its facilities on Poles, ducts, conduit and ROW and use GST or GST designated personnel to attach its equipment to such GTE Poles, ducts, conduits and ROW. GTE may, at its option, provide supervisory personnel at such installations in accordance with Section 7.3, provided that delay(s) or failure(s) of GTE personnel to be present at the scheduled time(s) shall not delay or otherwise interfere with GST's installation(s).
- 7.3 Where GTE requires supervisory personnel in this Article, GTE may, at its option, send one or more employees to review such work. GST shall pay the reasonable cost of a single GTE employee of an appropriate level to perform the review in the event GTE elects to send an employee for such review. GTE will not be compensated for any additional employees reviewing the work.
- 7.4 In the event any rearrangement of any GST cables installed in GTE Conduit is required due to any relocation or the requirements of GTE, another licensee of GTE or any other entity, GST shall be allowed to perform the rearrangement itself, at its option. GST shall be reimbursed by the appropriate party for its rearrangement unless such rearrangement is due to a requirement of GST. GTE shall give GST reasonable written notice of the necessity of the rearrangement under the circumstances. In the event GST does not perform the rearrangement within a reasonable time considering the construction schedule of the entity requiring the work, such work-shall be performed by GTE or the appropriate contractor after giving two (2) hours notice to GST.

8. Attachment Fees

- 8.1 GST shall pay to GTE an Attachment Fee, as specified in Appendix C hereto, for each GTE pole upon which GST obtains authorization to place an Attachment. The Attachment Fee may be increased by GTE from time to time in accordance with the Pole Attachment Act, or State law if the State is certified under the Pole Attachment Act, upon sixty (60) days written notice to GST.
- 8.2 Attachments Fees shall be payable on the date an AR is approved by GTE (unless the AR is withdrawn pursuant to Section 5.5 of this Article X) for all GTE poles identified in

Art X -5

that AR on a pro rata basis until the end of the then current year and thereafter on an annual basis. All payments shall be due within thirty (30) days of the date of a statement from GTE specifying the fees to be paid.

- 8.3 GTE shall maintain an inventory of the total number of GTE poles occupied by GST based upon the cumulative number of poles specified in all ARs authorized by this Agreement. It shall be GST's sole responsibility to notify GTE of any and all removals of Attachments from GTE's poles. Such notice shall be provided to GTE at least thirty (30) days prior to the removal of the Attachments. Each Notice of Removal shall be in a form specified by GTE and may be revised from time to time at GTE's sole discretion. GST shall remain liable for an Attachment Fee on each GTE pole included in all approved ARs until a notice of removal has been received by GTE. GTE may, at its option, conduct a physical inventory of GST's Attachments for purposes of determining the Attachment Fees to be paid by GST under this Section.
- 8.4 GTE shall maintain the Poles, ducts, conduits and ROW at its sole cost. GST shall maintain its own facilities installed within the Poles, ducts, conduits and ROW at its sole cost.

9. Occupancy Fees

- 9.1 GST shall pay to GTE an Occupancy Fee, as specified in Appendix C, for each linear foot of innerduct occupied by GST's Facilities in GTE's conduit(s). If GST's Facilities occupy more than one innerduct, a separate Occupancy Fee shall be paid by GST for each innerduct occupied. The Occupancy Fee may be increased by GTE from time to time as permitted by the Pole Attachment Act or State law if the State is certified under the Pole Attachment Act, upon sixty (60) days written notice to GST.
- 9.2 Occupancy Fees shall be payable on the date a AR is approved by GTE (unless the AR is withdrawn pursuant to Section 5.5 of this Article X) for all GTE innerducts identified in that AR on a pro rata basis until the end of the current year and thereafter on an annual basis. All payments shall be due within thirty (30) days of the receipt of a statement from GTE specifying the fees to be paid.
- 9.3 GTE shall maintain an inventory of the total linear footage of innerduct occupied by GST's Facilities in GTE's conduit(s) based upon the cumulative linear footage per innerduct from all ARs approved by GTE. GTE may, at its option, conduct a physical inventory of GST's Facilities for purposes of determining the Occupancy Fees to be paid by GST under this Section. It shall be GST's sole responsibility to notify GTE of any and all removals of GST's Facilities from GTE's conduit(s). Written notice of such removals shall be provided to GTE at least thirty (30) days prior to the removal. Each Notice of Removal shall be in a form specified by GTE. GST shall remain liable for all Occupancy Fees until GST's Facilities have been physically removed from GTE's conduits.

10. Modifications, Additions or Replacements to Existing Attachments

- 10.1 GST shall not modify, add to or replace facilities on any pre-existing Attachment on a GTE pole or in a GTE conduit without first notifying GTE, in writing, of the intended modification, addition or replacement at least thirty (30) days prior to the date the activity is scheduled to begin. The required notification shall include: (1) the date the activity is scheduled to begin, (2) a description of the planned modification, addition or replacement, (3) a representation that the modification, addition or replacement will not require any space other than the space previously designated for GST's Attachments, and (4) a representation that the modification, addition or replacement will not impair the structural integrity of the poles or conduits involved.
- 10.2 Should the parties determine that the modification, addition or replacement specified by GST in its notice will require more space than that allocated to GST or will require the reinforcement of, replacement of or an addition of support equipment to the poles or conduits involved in order to accommodate GST's modification, addition or replacement, GST will be required to submit an AR in compliance with this Agreement in order to obtain authorization for the modification, addition or replacement of its Facilities.
- 10.3 Access to GTE's poles and conduits for repairs, modifications, additions, or replacements required in emergency situations shall be governed by the provisions of Section 13 this Article.
- 10.4 GTE shall not attach facilities on, within or overlashed to existing GST facilities without GST's prior written consent. In the case of other entities seeking to attach facilities on, within or overlashed to existing GST facilities, GTE will direct such entities to seek consent from GST. GTE also will inform GST if GTE is aware of any other entities attaching facilities on, within or overlashing to existing GST facilities.

11. Surveys and Inspections of Pole Attachments

- 11.1 The exact location of GST's Attachments on or in GTE's facilities may be determined, at GTE's discretion, through a survey to be made by GTE at GTE's cost. If so requested, GST and/or any other entity owning or jointly owning the facilities with GTE may participate in the survey. If GST elects to participate, it shall bear its proportional share of the expenses of such survey. If the survey reveals one or more Unauthorized Attachments by GST, GST shall reimburse GTE all expenses incurred in conducting the survey.
- 11.2 Apart from surveys conducted in accordance with Section 11.1 above, GTE shall have the right to inspect any Attachment of GST on or in GTE's facilities as conditions may warrant upon written notice to GST. No joint survey or inspection by GTE shall operate to relieve GST of any responsibility, obligation or liability assumed under this Agreement.

Art X -7

12. Modification or Alteration of GTE Conduits or Poles

- 12.1 In the event GTE plans to modify or alter any GTE conduit(s) or pole(s) that house GST's Facilities, GTE shall provide GST notice of the proposed modification or alteration at least sixty (60) days prior to the time the proposed modification or alteration is scheduled to take place. Should GST decide to modify or alter GST's Facilities in the GTE conduit(s) or pole(s) to be modified or altered by GTE, GST shall so notify GTE in writing. In such event, GST shall bear a proportionate share of the total costs incurred by GTE to make the GTE conduit(s) or poles(s) accessible. GST's proportionate share of the total cost shall be based on the ratio of the amount of new space occupied by GST to the total amount of new space occupied by all of the parties joining in the modification.
- 12.2 In the event of a relocation ordered by a governmental entity, when such relocation is not reimbursable, the costs of relocation of the Poles, ducts, conduits and ROW shall be shared as follows: base conduits or Poles shall be shared on a pro rata basis by all parties occupying the affected ROW, and each Party shall pay its own cost of cable and installation.

13. Emergency Restoration Procedures

- 13.1 In the event of an emergency, restoration procedures may be affected by the presence of GST's Attachments. While GTE shall not be responsible for the repair of damaged Attachments of GST (except by mutual written agreement), GTE shall nonetheless control access to its poles or conduits if the restoration is to be achieved in an orderly fashion.
- 13.2 Where GTE and GST are involved in emergency restorations, access to GTE's poles or conduits will be controlled by GTE's Maintenance District Manager or his/her on-site representative according to the following guidelines:

13.2.1 Service Disruptions/Outages

- 13.2.1.1 While exercising its right to first access, GTE shall make all reasonable efforts to grant access to as many other entities with Attachments as is reasonably safe. In the event GST arrives at the scene ready to perform repairs and GTE has not yet arrived, GST may begin repairs until such time as GTE arrives at the scene.
- 13.2.1.2 Where simultaneous access is not possible, access will be granted on a first come, first served basis.
- 13.3 Notwithstanding the foregoing, in the event of an emergency, GTE shall begin repair of its facilities containing GST's facilities within two (2) hours of notification by GST. If GTE cannot begin repair within such two (2)-hour period, GST may begin such repairs

Art X-8

without the presence of GTE personnel. GST may climb Poles and enter the manholes, handholes, conduits and equipment spaces containing GTE's facilities in order to perform such emergency maintenance, but only until such time as qualified personnel of GTE arrive ready to continue such repairs. For both emergency and non-emergency repairs, GST may use spare innerducts or conduits, including the innerduct or conduit designated by GTE as emergency spare for maintenance purposes; however, GST may only use such spare conduit or innerduct for the minimum time reasonably necessary to complete the repairs.

14. Access to GTE's Manholes/Handholes

- 14.1 GTE will allow GST to take such actions as are reasonably necessary to confirm usability of manholes/handholes that are included in any AR submitted to GTE. GST shall give GTE at least fourteen (14) days advance written notice of its desire to confirm usability and shall obtain all authorizations from appropriate authorities required to open the manholes/handholes. GTE shall have the right to have a GTE employee or agent present when its manholes/handholes are being opened in accordance with Section 7.3. Such GTE employee or agent shall have the authority to suspend GST's activities in and around GTE's manholes/handholes if, in the sole discretion of said employee or agent, any hazardous conditions arise or any unsafe practices are being followed by GST's employees, agents, or contractors.
- 14.2 For purposes other than to confirm usability, GTE's manholes/handholes shall be opened only as permitted by GTE and only after GST has obtained all necessary authorizations from appropriate authorities to open manholes/handholes and conduct work operations therein. GTE shall have the right to have a GTE employee or agent present at any site at which its manholes/handholes are being opened in accordance with Section 7.3. Such GTE employee or agent shall have the authority to suspend GST's work operations in and around GTE's manholes/handholes if, in the sole discretion of said employee or agent, any hazardous conditions arise or any unsafe practices are being followed by GST's employees, agents, or contractors. The presence of GTE's authorized employee or agent shall not relieve GST of its responsibility to conduct all of its work operations in and around GTE's conduit(s) in a safe and workmanlike manner, in accordance with the terms of this Agreement.

15. Charges for Unauthorized Attachments

15.1 GST shall pay GTE an Attachment Fee for each Unauthorized Attachment accruing from the date the Unauthorized Attachment was first placed on the GTE pole. GST shall pay an Occupancy Fee for each Unauthorized Attachment accruing from the date the Unauthorized Attachment was first placed in the GTE conduit. In the event that the date the Unauthorized Attachment was first placed on a GTE pole or in a GTE conduit cannot be determined, such date shall be deemed the date of the last physical inventory made in accordance with this Agreement or, if no physical inventory has been conducted, the date

the first AR from GST was approved in accordance with this Agreement. If GST elects to leave the Attachment in place, GST also shall pay to GTE all costs ultimately incurred by GTE itself to rearrange any Unauthorized Attachment(s) of GST in order to accommodate the Attachment(s) of another party whose Attachment(s) would not have required any rearrangement but for the presence of GST's Unauthorized Attachment(s). If GST elects to leave the Attachment in place, GST shall also pay to GTE all costs incurred by GTE to reinforce, replace or modify a GTE pole or conduit, which reinforcement, replacement or modification consistent with the industry standards referred to in Section 7.1 of this Article X, was required as a result of the Unauthorized Attachment of GST. The Attachment or Occupancy Fee referenced in this subsection shall be determined in the same manner as such fee would have been determined if the Attachment had been authorized by GTE.

- 15.2 For purposes of this Section, an Unauthorized Attachment shall include, but not be limited to: (a) an Attachment on or in any facility, which facility is not identified in any Attachment Request approved in accordance with this Article X; (b) an Attachment that occupies more space than that allocated to GST by GTE; (c) an addition or modification to a pre-existing Attachment that impairs the structural integrity of the involved GTE facilities; (d) an Attachment in space leased to GST, made with the knowledge of GST, but owned and operated by a party other than GST. An Unauthorized Attachment does not include an Attachment which GST demonstrates was made mistakenly, but in good faith pursuant to an approved Attachment Request.
- 16. Abandonment. Nothing in this Agreement shall prevent or be construed to prevent GTE from abandoning, selling, assigning or otherwise disposing of any GTE conduit(s), pole(s) or other GTE property used in connection with GST's Facilities; provided, however, that GTE shall condition any such sale, assignment or other disposition subject to the rights granted to GST pursuant to this Agreement. GTE shall promptly notify GST of any proposed sale, assignment or other disposition of any GTE conduit(s), pole(s) or other GTE property used in connection with GST's Facilities.
- 17. <u>Insurance</u>. The following insurance obligations shall apply only with respect to obligations arising out of this Article X and shall have no general application to other obligations under this Agreement.
 - 17.1 GST shall carry insurance, at its sole cost and expense, to protect the Parties hereto and other joint users of said poles from and against any and all such claims and demands and from and against any and all actions, judgments, costs, expenses and liabilities in connection with personal injury, death, or property damage which may arise or result, directly or indirectly, from or by reason of the acts or omissions of GST under this Article only. The amounts of such insurance against liability due to personal injury to or death of persons shall be \$500,000 as to any one person and \$1,000,000 as to any one accident. The amounts of such insurance against liability due to property damage shall be \$500,000 as to each accident and \$500,000 aggregate. GST shall also carry such insurance as will

fully protect both it and GTE from all claims under any Workmen's Compensation Laws that may be applicable.

- 17.2 All insurance required of GST under this Agreement shall remain in force for the entire life of this Agreement. GTE shall be named as an additional insured in each such policy. GST shall submit to GTE certificates by each insurer to the effect that the insurer has insured GST for all potential liabilities of GST under this Agreement, and that it will not cancel any policy of insurance issued to GST except upon thirty (30) days notice to GTE. In the event GST's insurance coverage is to be canceled by reason of non-payment of premiums due, GTE shall have the option of paying any amount due and GST shall forthwith reimburse GTE the full amount paid by GTE.
- 17.3 GST shall promptly advise GTE, in writing, of any and all claims for damages, including, but not limited to, damage to property or injury to or death of persons, allegedly arising out of or in any manner related, directly or indirectly, to the presence or use of GST's Facilities.

18. Capacity Expansions

- 18.1 GTE shall take all reasonable steps to accommodate requests for access pursuant to the Pole Attachment Act and applicable regulations, which may include capacity expansions which may include placement of taller poles or additional conduits. In instances where spare capacity is not available, GTE shall take all reasonable steps to expand capacity before denying access, with the expenses to be borne by the parties benefiting from the work pursuant to the Pole Attachment Act.
- 18.2 GTE may recover from GST, and any other parties benefiting from such capacity expansions, the costs of modifying or expanding GTE's facilities. To facilitate the sharing of costs by all parties benefiting from the modification, GTE will establish a method whereby GST will be reimbursed on a pro rata basis for any portion of the facility later used by GTE or any other entity.

19. General Provisions

- 19.1 GST may, at its option, install its facilities on Poles, ducts, conduit and ROW and use GST or GST designated personnel to attach its equipment to such GTE Poles, ducts, conduits and ROW.
- 19.2 GTE shall provide to GST, in writing, a Single Point of Contact for issues relating to negotiating all structure lease and ROW Agreements.
- 19.3 GST shall not be required to bear any of the costs of rearranging or replacing its facilities, if such rearrangement or replacement is required as a result of an additional

attachment or the modification of an existing attachment sought by any entity other than GST, including GTE.

- 19.4 GTE shall not prevent or delay any third-party assignment of ROW to GST.
- 19.5 GTE shall make available the use of such Poles, ducts, conduits and ROW it has obtained from a third-party to GST, to the extent such agreement or State law does not prohibit GTE from granting such rights to GST. They shall be offered to GST on the same terms as are made available to GTE.
- 19.6 To the extent available and in a non-discriminatory manner, GTE shall provide GST space in manholes for racking and storage of cable and other related materials as requested by GST. In the event space is not available, GTE shall allow GST to place a manhole/handhole alongside the GTE manhole/handhole to accommodate storage of GST cable and other related materials; provided, however, that such placement shall not be allowed in the event it would threaten the structural integrity of the GTE manhole/handhole.
- 19.7 GTE shall remove any retired cable from conduit systems or Poles to allow for the efficient use of conduit space and pole space, in order to make such poles or conduits available.
- 19.8 Where a spare innerduct does not exist, GTE shall allow GST to install innerducts in GTE conduit. For any innerducts not used by GST, GST shall be reimbursed for the proportionate share of the costs for said innerducts from any parties using the innerduct.

1. Rights of Access	1
2. Definitions	_
3. Non-discriminatory Access and Maintenance Spares	
4. Grant of License.	
5. Attachment Requests (ARs)	_
6. Review of GTE Plans and Records	
7. Placement of Attachments	5
8. Attachment Fees	5
9. Occupancy Fees	
10. Modifications, Additions or Replacements to Existing Attachments	
11. Surveys and Inspections of Pole Attachments	7
12. Modification or Alteration GTE Conduits or Poles	
13. Emergency Restoration Procedures	
14. Access to GTE's Manholes/Handholes	
15. Charges for Unauthorized Attachments	
16. Abandonment.	
17. Insurance	
18. Capacity Expansions	
19. General Provisions.	

ARTICLE XI

NUMBER RESOURCES AND PORTABILITY

1. Number Resources

- 1.1 Number Assignment. Nothing in this Agreement shall be construed to, in any manner, limit or otherwise adversely impact GST's right to employ or to request and be assigned any NAP number resource including, but not limited to, Central Office ("NXX") Codes pursuant to the Central Office Code Assignment Guidelines. Any request for numbering resources by GST shall be made directly to the NANP Number Plan Administrator. Except with respect to those areas in which GTE is the NANP Number Plan Administrator, GTE shall not be responsible for the requesting or assignment of number resources to GST. The Parties agree that disputes arising from numbering assignment shall be arbitrated by the NANP Number Plan Administrator per dispute resolution guidelines contained in the relevant numbering assignment guidelines. GST shall not request that number resources be assigned to any GTE central office or other switching facility.
- 1.2 Rate Centers. The Parties agree to utilize the current Rate Center areas and Rate Center points that the Commission has approved for the incumbent LEC and shall assign whole NPA-NXX codes to each Rate Center. GST reserves its right to petition the Commission to change the Rate Centers and calling scope.
- 1.3 Routing Points. GST will also designate a Routing Point for each assigned NXX code. GST may designate one location within each Rate Center as a Routing Point for the NPA-NXX associated with that Rate Center; alternatively GST may designate a single location within one Rate Center to serve as the Routing Point for all the NPA-NXXs associated with that Rate Center and with one or more other Rate Centers served by GST within an existing GTE exchange area. GST shall use reasonable efforts to designate at least one Routing Point in GTE's exchange area for all NPA-NXXs associated with GTE's Rate Centers.
- 1.4 Code and Numbers Administration. The Parties will comply with code administration requirements as prescribed by the FCC, the Commission, and accepted industry guidelines. Where GTE is the NANP Number Plan Administrator, GTE will administer number resources, and charge for such administration in accordance with applicable rules and regulations. GTE will administer numbering resources in a competitively neutral manner, and process requests for NXX codes in a timely manner and in accordance with industry standards. The Parties agree that the nondisclosure provisions in Article III, Section 12.1 shall apply to protect GST proprietary information that may be submitted to GTE in connection with GTE's responsibilities as NANP Number Plan Administrator.

- 1.5 Programming Switches. It shall be the responsibility of each Party to program and update its own switches and network systems pursuant to the Local Exchange Routing Guide ("LERG") guidelines to recognize and route traffic to the other Party's assigned NXX codes at all times. Neither Party shall impose any fees or charges whatsoever on the other Party for such activities.
- 2. Interim Number Portability. GTE shall provide Interim Number Portability ("INP") in accordance with requirements of the Act and FCC Rules and Regulations. Each Party shall provide the other Party with service provider number portability for the purpose of allowing end user customers to change service-providing Parties without changing their telephone number. GTE shall provide INP to GST in GTE's central offices using remote call forwarding ("RCF"), Direct Inward Dialing ("DID"), Local Exchange Routing Guide ("LERG") reassignment and other methods as provided herein. GTE will provide RCF or DID to GST immediately upon the Effective Date of this Agreement. INP will be provided in accordance with all technical and service standards so as to maintain functionality, quality, reliability and convenience to GST subscribers services with minimal impairment. GST shall provide, to the extent technically feasible, INP on a parity basis to GTE using same or like methodologies at the same time such same or like methodologies are provided by GTE to GST or under a separate schedule to be agreed to by the Parties, such agreement to be affixed hereto and made a part of this Agreement.
 - 2.1 INP Cost Recovery. The Parties agree that each Party shall provide INP pursuant to applicable State tariffs.
 - 2.2 RCF. RCF is an existing switched-based service that may be used to provide subscribers with INP by redirecting calls within the telephone network. When used to provide INP, RCF will first route a call to the previously-serving switch (number-assigned switch). This switch will then forward the call to a number in the currently-assigned switch (subscriber-serving switch) using an NXX code associated with the subscriber-serving switch. The ordering Party shall request an appropriate number of paths to handle required simultaneous calls to the same ported telephone number. At the request of the providing Party, the Parties shall meet to jointly plan for any additional trunking requirements that may be necessitated by additional call paths for the purpose of assuring adequate network call processing capability and minimal network blocking.
 - 2.3 DID. DID is an existing switch-based service that may be used to provide subscribers with INP. DID completes large volumes of calls to business subscribers using reserved blocks of numbers and dedicated trunking from the serving switch to the subscriber's private branch exchange (PBX). GST shall propose the specific number of trunks needed to provide DID. Also, inter-switch signaling is usually limited to multi-frequency (MF). This precludes passing CLID to the GST switch. The INP requesting Party may have the DID trunking redirected to the requesting Party's switch and provide for any requirements between the requesting Party's switch and the subscriber PBX. In either event, the reserved block of numbers remains opened within the providing Party's number-assigned switch.

- 2.4 LERG Reassignment. Portability for an entire NXX of numbers shall be provided by utilizing reassignment of the NXX to GST through the Local Exchange Routing Guide (LERG). GTE shall provide LERG reassignment only where: (i) at least 70% of an entire NXX code is taken by no more than three (3) GST subscribers and the remainder of the code is unassigned, or (ii at least forty-five percent (45%) of an entire NXX code is taken by one (1) subscriber, and the remainder is either unassigned and/or reserved by that subscriber. GTE shall, at GST's request, work cooperatively with GST to reassign the NXX to GST through LERG reassignment, within thirty (30) days after receiving a request to do so. Updates to translations in the GTE switching office from which the NXX is ported will be made by GTE prior to the date on which LERG changes become effective, in order to redirect calls to the GST switch via the INP method specified by GST. In the case of a declared jeopardy code exhaust, the Parties agree LERG reassignment will be done on an individual case basis (ICB) basis for the duration of the jeopardy code exhaust period. At either Party's option, but in no event sooner than one hundred and twenty (120) days, the Parties will meet to re-evaluate and/or modify the requirements of this Section.
- 2.5 Additional Methods of INP. Additional methods of INP listed in this Section will be made available by GTE to GST upon GST's request. Any such requests will be subject to the INP activation and ordering procedure set forth in Section 2.5.3.
 - 2.5.1 [Section 2.5.1 is Reserved]
 - 2.5.2 Route Indexing: Route Indexing may take two forms: Route Index-Portability Hub (RI-PH) or Directory Number-Route Index (DN-RI).
 - 2.5.2.1 RI-PH will route a dialed call to the GTE switch associated with the NXX of the dialed number. The GTE switch shall then insert a prefix onto the dialed number which identifies how the call is to be routed to GST. The prefixed dialed number is transmitted to the GTE tandem switch to which GST is connected. The prefix is removed by the operation of the tandem switch and the dialed number is routed to GST's switch so the routing of the call can be completed by GST.
 - 2.5.2.2 DN-RI is a form of RI-PH that requires direct trunking between the GTE switch to which the ported number was originally assigned and the GST switch to which the number has been ported. The GTE switch shall send the originally dialed number to the GST switch without a prefix.
 - 2.5.2.3 GTE shall provide RI-PH or DN-RI on an individual telephone number basis, as designated by GST. Where technically feasible, GST may designate both methods so that calls to ported numbers are first directed to the GST switch over direct trunks but may overflow to tandem trunks if all trunks in the direct group are occupied.

- 2.5.2.4 For both RI-PH and DN-RI the trunks used may, at GST's option, be the same as those used for exchange of other Local Traffic and toll traffic with GTE. At GST's option, the trunks shall employ SS7 or in band signaling and may be one-way or two-way.
- 2.5.3 INP Initial Activation and Ordering Procedures.
 - 2.5.3.1 GST may order activation of Route Indexing for a specific end office by contacting GTE's regional account manager. GTE shall provide the requested service for that end office within thirty (30) days after such request. GTE may notify GST that an additional reasonable period of time may be required if the volume of GST's orders prevents GTE from providing any particular request within thirty (30) days. GTE shall specify the additional time required which shall in no case be longer than an additional ten (10) working days. At such time as GTE implements a direct ordering and provisioning process that does not require account manager participation, GTE shall notify GST and thereafter use such process for the ordering and provisioning of Route Indexing.
 - 2.5.3.2 After initial activation of an end office, GST may order Route Indexing for individual customers subtending that office via the local service request ("LSR") process.
- 2.6 Other Methods. Other INP methods may become available for ordering by one Party from the other Party. GST and GTE agree that any other INP method deployed by a Party as a result of (i) federal or state order, (ii) the offering Party's discretion, or (iii) a further agreement of the Parties shall become immediately available, within the jurisdiction so-offered, under the terms and conditions agreed to herein and as may be affixed to and made a part of this Agreement.
- 2.7 Other Currently Available Number Portability Provisions.
 - 2.7.1 As set forth in Article IV, Section 7.3 of this Agreement and subject to Section 2.3 of this Article, GTE shall cooperate on the exchange of Transaction Capability Access Protocol ("TCAP") messages to facilitate full inter-operability of CCS-based features between its and GST's networks, including all CLASS features and functions, where SS7 capability is available.
 - 2.7.2 GTE and GST shall cooperate in the process of porting numbers to minimize subscriber out-of-service time, as described in Section 4.2. GTE shall disclose to GST any technical or capacity limitations that would prevent use of a requested INP method in a particular switching office.

- 2.7.3 The requirements of this Section 2.7.3 shall only apply when GTE is the lead telco for E911 service. For INP, GST shall have the right to use the existing GTE 911 infrastructure for all 911 capabilities. When an INP method is used for GST subscribers, both the GST number and the ported GTE number shall be stored in 911/ALI databases as specified in Article VII of this Agreement. GST shall have the right to verify the accuracy of the information in the PSAP databases.
- 2.7.4 When any INP method is used to port a subscriber, the Party providing INP must maintain the Line Information Database ("LIDB") record for that number to reflect appropriate conditions as reported to it by the porting service provider. The INP provider must outclear call records to the INP recipient for billing and collection from the subscriber. The INP recipient shall receive revenue for LIDB look-ups, and shall pay LIDB storage charges pursuant to a LIDB billing and collection agreement to be executed by the Parties within sixty (60) days after the Effective Date.
- 2.7.5 GTE shall send the appropriate CARE transaction to notify the IXC that access is now provided by a new CLEC for the ported number.
- 2.8 Access Charges. To compensate GST for the applicable access revenues associated with terminating interLATA or intraLATA toll calls to GST subscribers whose telephone numbers have been ported from GTE, GTE shall pay GST eighty-five percent (85%) of the terminating access revenues as determined on a LATA basis by the following formulae. Such formulae shall be updated on a quarterly basis at the request of either Party.
 - 2.8.1 (total terminating access revenues for business customers) <u>divided</u> by (the number of business subscriber lines) <u>times</u> (the number of business lines ported to GST); and
 - 2.8.2 (total terminating access revenues for residential customers) <u>divided</u> by (the number of residential subscriber lines) <u>times</u> (the number of residential lines ported to GST).
- 3. Number Portability. The Parties agree that they shall develop and deploy number portability ("NP") in accordance with the Act, such FCC and state orders, and industry standards, as may be applicable. Upon implementation of NP the Parties agree to transition all INP customers and their services to NP methods within a mutually agreed upon time frame and to discontinue further use of interim methods of number portability. GST shall provide, to the extent technically feasible, NP to GTE using same or like methodologies at the same time such same or like methodologies are provided by GTE to GST or under a separate schedule to be agreed to by the Parties, such agreement to be affixed hereto and made a part of this Agreement. To the extent any criteria of this Section 3 becomes inconsistent with industry standards, industry standards shall supersede such criteria.

- 3.1 GST and GTE agree to jointly cooperate in the development and deployment of NP to assure that NP method(s):
 - 3.1.1 allow subscribers to change local service providers and retain the same telephone number(s);
 - 3.1.2 allow subscribers to retain current and have available all vertical (call management) and advanced local service features subject to requirements of the FCC and state legislative and regulatory directives and orders;
 - 3.1.3 fully support(s) emergency and operator services;
 - 3.1.4 provide that when a subscriber ports to another service provider, the donor provider shall use information provided by the porting provider to update the 911 tandem switch routing tables and 911/ALI database to correctly route, and provide accurate information to Public Service Answering Point ("PSAP") call centers;
 - 3.1.5 use scarce number resources efficiently and administer such resources in a competitively neutral manner;
 - 3.1.6 allow both Parties to rate and bill all types of calls;
 - 3.1.7 allow both Parties to comply with all FCC and state legislative and regulatory directives; and
 - 3.1.8 provide that the NP network architecture shall not subject customers of GST or other alternate local exchange carriers to any degradation of service quality or network reliability when they port their telephone numbers (including transmission quality, switching and transport costs, increased call set-up time and post-dial delay, or a loss of services, such as CLASS features), and GST shall not be required to rely on the GTE network for calls completing to its ported subscribers.
- 3.2 When an office is equipped with NP, all NXXs in the office shall be defined as portable and translations will be changed in all service provider switches to open those NXXs for database queries. If a switch serves multiple rate centers, then at a minimum, all of the NXXs for a rate center in that switch shall be made portable when any one of them is turned up.
- 3.3 When an NXX is defined as portable, it shall also be defined as portable in all NP-capable offices which have direct trunks to the given switch.
- 3.4 During the process of porting a subscriber, the donor service provider shall implement the 10-Digit trigger feature. When the donor provider receives the porting request, the

10-Digit trigger shall be applied to the Subscriber's line at least twenty-four (24) hours prior to the order due date in order to overcome donor network time delays in the disconnection of the subscriber. Alternatively, when an activation notice is sent to an NPAC to trigger a broadcast to service provider databases, the donor switch shall have its translations changed to disconnect the subscriber's line within fifteen (15) minutes of the donor network Local SMS's having received the broadcast.

3.5 NP Cut-Over Process. GTE shall cooperate in the process of porting numbers from one carrier to another so as to limit service outage for the ported subscriber. This shall include, but not be limited to, updating its Network Element translations within five (5) minutes following notification by the industry SMS and deploying such temporary translations as may be required to minimize service outage, <u>e.g.</u>, unconditional triggers, provided, however, that applicable industry standards shall supersede these criteria when, and if, such criteria become inconsistent with such industry standards.

4. Requirements for INP

4.1 White and Yellow Page Listings. GTE shall provide and maintain for GST one (1) white page and one (1) yellow page (if applicable) listing for each GST subscriber that has ported its number from GTE, consistent with that specified for Provisioning in this agreement. The listing and handling of listed and nonlisted telephone numbers will be at least at parity with that provided by GTE to its own subscribers.

4.2 INP Cut-Over Process

- 4.2.1 For each group of ported numbers, GTE shall implement the disconnects and switch translations within twenty (20) minutes of the time window mutually agreed to by the Parties.
- 4.2.2 If GTE has automated this process, GTE shall schedule a mechanized update of disconnects and switch translations to occur at the GST-requested cut-over time (frame due time), or as soon thereafter as possible. Such updates will be available seven (7) days a week, twenty-four (24) hours a day. GTE shall provide an Operations contact whom GST can reach in the event manual intervention is needed to complete the cutover. In the event GTE automates the INP cut-over process, the manual intervention procedures shall be mutually agreed by the Parties.
- 4.3 When a subscriber ports to another service provider utilizing INP and has previously secured a reservation of line numbers from the donor provider for possible activation at some future point, these reserved but inactive numbers shall "port" along with the active numbers being ported by the subscriber in order to ensure that the end user subscriber will be permitted to expand its service using the same number range it could use if it remained with the donor provider.

- 4.4 Installation Intervals. GTE shall install INP within an installation interval mutually agreed upon by GTE and GST, but in no event shall such interval be greater than that GTE provides itself, its Affiliates, or its customers.
- 4.5 Call Referral Announcements. GTE shall allow GST to (1) order call referral announcements, and (2) specify the particular announcement from GTE's standard set of call referral announcement options, on a per telephone number basis, for telephone numbers which GST has ported from GTE to GST. Such announcements will provide the new telephone number of the customer. Such announcements will also provide for the same length of time that GTE provides referral information for its customers that have changed telephone numbers.
- 4.6 Testing. GTE and GST shall cooperate in conducting GST's testing to ensure interconnectivity between systems. GTE shall inform GST of any system updates that it reasonably believes may affect the GST network and GTE shall, at GST's request, perform tests to validate the operation of the network. Additional testing requirements may apply as specified by this Agreement.
- 4.7 Engineering and Maintenance. GTE and GST will cooperate to ensure that performance of trunking and signaling capacity is engineered and managed at levels which are at least at parity with that provided by GTE to its subscribers and to ensure effective maintenance testing through activities such as routine testing practices, network trouble isolation processes and review of operational elements for translations, routing and network fault isolation. Additional specific engineering and maintenance requirements shall apply as specified in this Agreement.
- 4.8 Recording and Billing.
 - 4.8.1 GTE shall provide GST with accurate billing and subscriber account information for GST subscribers whose numbers have been ported.
 - 4.8.2 Calls originated from RCF ported numbers in GTE end-offices which are SS7 capable and sent to IXCs shall signal the shadow number and ported number in the SS7 Initial Address Message consistent with industry practice.
 - 4.8.2.1 GTE shall allow GST to order provisioning of Telephone Line Number (TLN) calling cards and Billed Number Screening (BNS), in its LIDB, for ported numbers, as set forth in Article V, Section 3.2.2.8 and Article VII, Section 5.15.
 - 4.8.2.2 GTE shall maintain entries for the ported numbers as set forth in Article VI, Section 12.4.
- 4.9 This Section 4 shall be deemed in all cases to apply to INP only.

1.	Number Resources	
2	Interim Number Portability	.2
	Number Portability	
	Requirements for INP	
┱.	Requirements for 1141	• '

ARTICLE XII

[THIS ARTICLE IS RESERVED]

ARTICLE XIII

SECURITY

- 1. <u>Physical Security</u>. Each Party shall exercise the same degree of care that it provides itself with respect to the other's property and collocation space to prevent harm or damage to the other's employees, agents or subscribers, or their property. Without limiting the foregoing, each Party agrees that the following additional terms and conditions shall apply:
 - 1.1 The Parties shall establish procedures for access to collocation cages by GTE and non-GTE personnel, GST and non-GST personnel, and shall not allow access by security guards unless such access comports with this Article XIII.
 - 1.2 GTE shall ensure that the area which houses GST's equipment is adequately secured and monitored to prevent unauthorized entry. Doors with removable hinges or inadequate strength shall be monitored by an alarm connected to a manned site. All other alarms monitoring GST collocation space provided by GTE shall also be connected to a manned site. GST may, at its option, provide its own intrusion alarms for its collocation space.
 - 1.3 GTE shall retain a master key to GST's collocation space for use only in event of emergency. At GST's option, the Parties shall review key control procedures no more frequently than once in any twelve (12) month period. At any time, GST may elect to change locks if it suspects key control has been lost; provided, however, that GTE will be provided with a master key.
 - 1.4 GTE shall provide notification to designated GST personnel to indicate actual or attempted security breach as soon as GTE becomes aware of such breach.
 - 1.5 Collocation space shall comply with all applicable fire and safety codes.
 - 1.6 GTE shall control janitorial access to collocation cages, and restrict such access to approved and certified employees, agents or contractors.
 - 1.7 GTE shall allow GST to inspect or observe spaces which house or contain GST equipment or equipment enclosures at any time and to furnish GST with all keys, entry codes, lock combinations, or other materials or information which may be needed to gain entry into any secured GST space.
 - 1.8 The Parties shall furnish to each other a current written list of employees who are authorized to enter spaces which house or contain GST equipment or equipment enclosures, including caged areas, authorized with each other's current facsimiles of the identifying credentials to be carried by such persons. The Parties shall use reasonable efforts to ensure that the lists are regularly updated.

1.9 The Parties shall at all times comply with each other's security and safety procedures and requirements, including but not limited to sign-in, identification, and escort requirements while in spaces which house or contain GST equipment or equipment enclosures and ensure compliance with each other's physical security guidelines.

2. Network Security

- 2.1 GTE shall provide an appropriate and sufficient back-up and recovery plan to be used in the event of a GTE system failure or emergency.
- 2.2 GTE shall install, to the same extent utilized by GTE, controls to (i) disconnect a user for a pre-determined period of inactivity on authorized ports; (ii) protect subscriber proprietary information; and (iii) ensure both ongoing operational and update integrity.
- 2.3 GTE shall provide Network Security (i) ensuring that all GST-approved systems and modem access are secured through security devices such as GTE utilizes for itself; and (ii) ensuring that access to or connection with a Network Element are established through GST security-approved networks or gateways and as GTE utilizes for itself. GST will be responsible for any additional logical security controls to Network Elements and will comply with GTE security standards.
- 2.4 Each Party agrees to comply with the other's procedure for protection of electronic information assets, except where incompatible. The Parties will meet at mutually agreed times to review and address network integrity issues.

3. Law Enforcement Interface

- 3.1 GTE shall provide seven (7) day a week/twenty-four (24) hours a day installation and information retrieval pertaining to emergency traps, assistance involving emergency traces and emergency information retrieval on customer invoked CLASS services including, without limitation, call traces requested by GST.
- 3.2 GTE agrees to work jointly with GST in security matters to support law enforcement agency requirements for taps, traces, court orders, etc. Charges for providing such services for GST end-users will be billed to GST.
- 3.3 GTE will, in non-emergency situations, inform the requesting law enforcement agencies that the end-user to be wire tapped, traced, etc., is an GST end-user and shall refer them to GST.

The signing and filing of this arbitrated Agreement with the Washington Utilities and Transportation Commission in accordance with the Arbitrator's Report and Decision in Docket No. UT-960338, dated January 3, 1997 (the "Decision"), In the Matter of the Petition for Arbitration of an Interconnection Agreement Between GSTetro Access Transmission Services, Inc. and GTE Northwest Incorporated, pursuant to 47 USC Section 252 and the Commission Order Modifying Arbitrator's Report and Approving Interconnection Agreement with Modifications dated April 3, 1997 (collectively, the "Orders"), does not in any way constitute a waiver by either GSTetro or GTE Northwest Incorporated of any right which any such Party may have to appeal, or to petition the Commission for reconsideration of, any determination contained in the Orders or any provision included in this Agreement pursuant to the Orders.

In this document the Parties attempt to comply with the Orders which direct the Parties to reduce to contractual language the substantive provisions and directives of the Orders. Nothing contained herein shall be construed or is intended to be a concession or admission by either Party that any such provision of the Orders or the language herein complies with the duties imposed by the Telecommunications Act of 1996, the decisions of the FCC and the Washington Utilities and Transportation Commission, or other law, and each Party thus expressly reserves its full right to assert and pursue claims that the Orders do not comply with applicable law. Any or all of the terms of this Agreement may be altered or abrogated by a successful challenge to the Agreement (or to the order approving the Agreement) as permitted by applicable law.

IN WITNESS WHEREOF, each of the Parties has caused this Agreement to be executed by its duly authorized representatives.

Services Inc.	GIE Northwest Incorporated
Ву:	Ву:
Name: Donald T. Lynch	Name: Donald W. McLeod
Title: Senior Vice President - Financial Operations	Title: Vice President - Local Competition/ Interconnection
Date:	Date:
	**GTE Northwest Incorporated does not consent to this purported agreement (which does not comply with the Federal Telecommunications Act of 1996) and does not authorize any of its representatives to consent to it. The signature of a GTE representative has been placed on this document only under the duress of an order of the Washington Utilities and Transportation Commission requiring such signature.

1.	Physical Security]
	Network Security	
	Law Enforcement Interface	

APPENDIX A

SERVICE MATRIX

Service Location (identified by tandem serving area)	Routing Point	IP (Identified by CLLI code)	Type of Interconnect (i.e., collo, midspan, meet, special access)
EVRTWAXA03T	STTLWAWBDS0	EVTRWAXAW05	COLLOCATION

APPENDIX B

INTERCONNECTION, TELECOMMUNICATIONS SERVICES AND FACILITIES AGREEMENT

BETWEEN

GTE Northwest Incorporated

AND GST

AMENDMENT NO	
THIS AMENDMENT is made effective as of	"Customer"). GTE and GST are
WHEREAS, Provider is providing to Customer and Customer is Services described in that certain Interconnection, Telecommunic Agreement for the State of by and between GTE, 199 (the "Agreement"); and	cations Services and Facilities
WHEREAS, the Parties desire to amend the Agreement as provi	ided in this Amendment.
NOW, THEREFORE, in consideration of the terms and conditi Amendment, the Parties agree as follows:	ons contained in this
1. Additional Services [if applicable]	
1.1 Provider agrees to provide to Customer and Customer Provider the following services under the terms and conditional within the service attachment listed below and attached	itions set forth in the Agreement
Service Attachment	
1.2 As of the effective date of this Amendment, and cont term of the Agreement, is made a under the Agreement and Service Attachment shall Attachment to the Agreement.	part of the Services provided
1.3 As of the effective date of this Amendment, and cont term of the Agreement, Appendix A, Service Matrix, to the	• •

Appendix B - 1

and Appendix A, Service Matrix, to this Amendment is hereby inserted in lieu thereof to reflect the additional Services and related Service Locations.

2. Service Locations [if applicable]

2.1 Provider agrees to provide to Customer and Customer agrees to purchase from Provider the following Services in the following locations:

Service Location (identified by tandem serving area)	Routing Paint	IP (Identified by CLLI code)	Type of Interconnect (i.e., collo, midspan, meet, special access)

- 2.2 As of the effective date of this Amendment, the locations set forth in Section 2.1 above shall be deemed Service Locations under the Agreement.
- 2.3 As of the effective date of this Amendment, and continuing through the remaining term of the Agreement, Appendix A, Service Matrix, to the Agreement is hereby deleted and Appendix A, Service Matrix, to this Amendment is hereby inserted in lieu thereof to reflect additional Service Locations.

3. Interpretation

All capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Agreement.

4. Effect

Except as modified herein, the Agreement shall remain in full force and effect.

5. Authority

Each person whose signature appears below represents and warrants that he or she has the authority to bind the Party on whose behalf he or she has executed this Amendment.

6. Multiple Counterparts

This Amendment may be executed in multiple counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

7. No Offer

Submission of this Amendment for examination or signature does not constitute an offer by Provider for the provision of the products or services described herein. This Amendment will be effective only upon execution by both Provider and Customer.

IN WITNESS WHEREOF, the Parties have executed this Amendment on the date or dates written below effective as of the date first above written.

GST	GTE Northwest Incorporated	GTE Northwest Incorporated	
Ву:	By:		
Name:	Name:		
Title:	Title:		
Date:	Date:		

APPENDIX C

PRICE SCHEDULE

1. Services

- 1.1 Local Service Resale. The prices charged to GST for Local Service shall be calculated using the avoided cost discount applicable in Washington, determined on the basis of the retail rate charged to subscribers for the telecommunications service requested. The interim wholesale discount shall be 16.63% off the applicable retail rate for all GTE services subject to resale. This interim discount shall remain in effect until the Commission determines a permanent wholesale discount in accordance with the Act. Once determined, said wholesale discount shall apply instead of the interim discount for the remaining Term of this Agreement.
- 1.2 The prices shall be based on GTE's retail rates (including all promotions and contracts as described in Article V) applicable on the Effective Date, less the applicable discount. If GTE changes its retail rates after GST executes this Agreement, the applicable discount shall be applied to the retail rates as changed.
 - 1.2.1 Non-recurring Charges for Resale Services: Non-recurring charges are as set forth in GTE's retail local service tariffs, less the wholesale discount of 16.63 percent.
- 1.3 Unbundled Network Elements. The recurring and non-recurring prices charged to GST for specific Network Elements are in Attachment I to this Appendix. The prices listed in this Appendix are interim only and are subject to change to conform with the rate for unbundled Network Elements and non-recurring charges as ordered by the Commission subsequent to the Effective Date of this Agreement. Once the Commission-determined prices are adopted, said prices will be substituted for the interim prices and shall apply for the remainder of the Term of this Agreement, unless otherwise changed by the Commission.
- 1.4 Collocation. Interim rates for collocation are those contained in Attachment I to this Appendix C.
- 1.5 Interconnection Services. Terms and conditions of compensation for Interconnection Services are specified in Article IV and Appendix E. The rate for reciprocal compensation when traffic is out-of-balance is that specified for local interconnection on Attachment I of this Appendix.
- 1.6 Right of Way, Conduits and Pole Attachments. GST shall pay GTE a fee, determined by a methodology consistent with 47 USC Section 224 and the FCC's regulations thereunder for placement of GST's facilities in or on GTE's Poles, conduits or rights of

Appendix C-1

way. Such methodology is subject to change, by mutual agreement, in the event the FCC issues new rules or the Commission adopts rules setting forth a new methodology.

- 1.7 Other Ancillary Services. The following prices also shall apply:
 - 1.7.1 E911 Network Elements (when GST orders this service as a facilities-based carrier): GTE's transport and termination rates, if applicable, shall apply as set forth in Attachment I to this Appendix C.
 - 1.7.2 INP: Unless an FCC or Commission order establishes a different cost recovery mechanism, each party shall charge for INP pursuant to tariffs approved by the Commission.
 - 1.7.3 Access Tariffs: References to GTE's switched and special access tariff rates or service shall mean those rates and services contained in GTE's intrastate or interstate access tariffs, as applicable.
 - 1.7.4 Operator transfer service: GST may purchase GTE's operator transfer service at the rates specified in GTE's applicable tariff, where the Parties have agreed that GTE will provide operator transfer service to GST.
 - 1.7.5 The cost of access to OSS shall be recovered on the basis of TELRIC and should be calculated consistent with the Commission's approved methodology for TELRIC used to calculate unbundled network elements.
- 1.8 To Be Determined Rates. With respect to TBD prices, prior to GST ordering any such TBD item or its analog, the Parties shall meet and confer to establish an interim price. Upon GST's request, GTE shall provide, where available, an interim cost study for the requested TBD item consistent with the TSLRIC principles and methods adopted by the Commission and in the Decision. If the Parties are unable to reach agreement on a price for such item, an interim price shall be set for such item that is equal to the price for the nearest analogous item for which a price has been established (for example, if there is not an established price for a non-recurring charge ("NRC") for a specific Network Element, the Parties would use the NRC for the most analogous retail service or other Network Element for which there is an established price). Any interim prices so set shall be subject to modification by any subsequent decision of the Commission. If an interim price is different from the rate subsequently established by the Commission, any underpayment shall be paid by GST to GTE, or any overpayment refunded by GTE to GST, within forty-five (45) days after the establishment of the price by the Commission.
- 2. <u>Terms and Conditions</u>. The rates identified in Appendices C and E shall remain in effect until the Commission determines different rates in any proceeding subsequent to the Effective Date of this Agreement. Once so determined by the Commission, said different rates shall apply instead of the rates set forth herein for the remaining Term of this Agreement. For the Network Elements

Appendix C-2

enumerated in Attachment I, the interim rates are those specified in such Attachment and there shall be not additional charges for such Network Elements.

ATTACHMENT I to APPENDIX C

Prices for Unbundled Network Elements

Beginning with the Effective Date of this Agreement, Network Elements and Combinations, and Nonrecurring Charges will be priced in accordance with the standards and prices described in this Appendix.

The Parties join in the charges in this Appendix for the sole purpose of compliance with the Decision. The Parties may propose different charges in their comments on the conformed Agreement.

ATTACHMENT I - Unbundled Network Elements and Non-Recurring Charges

PRICING ATTACHMENT I APPENDIX C

1111111111	
1. UNBUNDLED LOOP	
2-Wire Loops, per month	\$13.92
4-Wire Loops, per month	\$48.00
Specially Conditioned Loops	TBD
Loop Concentrator/Multiplexer	TBD
Feeder	TBD
Distribution	TBD
2. NETWORK INTERFACE DEVICE	
Basic NID, per line, per month	\$1.80
12x NID, per line, per month	\$1.90
3. LOCAL SWITCHING (NOTE: the Price List for Vertical Switchin	
2-Wire Port, per month	\$1.25
DS-1 Port, per month	\$109.90
End Office Switching, per MOU	\$0.0029
4. TANDEM SWITCHING	
Tandem Switching, per avg. MOU	\$0.0010636
5. INTEROFFICE TRANSMISSION	
Common Transport per MOU per leg	\$0.00063
Tandem Switched	\$0.0053
Dedicated Transport	
Dedicated DS0 / Voice Grade per DSO equivalent per month	\$3.84
Dedicated DS1 per DS1, per month	\$92.00
DS3 per DS3, per month	\$2,583.00
Dedicated Transmission Links	
Entrance Facilities	
DS1 Standard 1st System	\$240.00
DS1 Standard Additional System	\$130.00
DS3 Protected, Electrical	\$1,080.00
Multiplexing	
DS1 to Voice MUX, per month	\$190.00
DS3 to DS1 MUX, per month	\$400.00
, 1	

6. SIGNALING SYSTEM (SS7)	
Links, per link per month	\$26.50
STP, per month, per port	\$639.00
SCP, per signaling message	\$0.00151
D Link Facility 56 kps per month	\$13.79
7. OPERATOR SERVICES & DA	
Directory Assistance	TBD
Operator Services	TBD
8. LOCAL INTERCONNECTION AND RECIPROCAL COM	IPENSATION
Tandem	\$0.0091
End Office	\$0.0032
Transit	\$0.0053
9. COLLOCATION	4 14/4 - 14/14/4
EISCC (Cross-Connect Jumper)	
DSO, per month	\$2.12
DS1, per month	\$4.66
DS3, per month	\$34.09
Physical engineering fee per request	\$4,998.00
Simple building modification per office	\$16,458.00
Moderate building modification per office	\$22,619.00
Complex building modification per office	\$28,837.00
DC power per 40 AMPs	\$4,375.00
Cable pull per 12 fibers	\$1,454.00
Cage enclosure per cage	\$5,103.00
Partitioned space per square foot per month	\$2.63
DC power per 40 AMPs per month	\$413.00
Cable space per 12 fibers per month	\$28.53

10. DARK FIBER	R	· · · · · · · · · · · · · · · · · · ·
24-Strand Cable, pe	er foot per month	TBD
48-Strand Cable, po		TBD
11 SERVICE PR	OVIDER NUMBER PORTABILITY	
Interim Number Po		per tariff
12. NONRECUR	RING CHARGES	
12.1 UNBUNI	DLED SERVICES	
Service Orderin	g (loop or port)	
Initial Servi	ce Order, per order	\$47.25
Transfer of	Services Charge, per order	\$16.00
Subsequent	Service Order, per order	\$24.00
Customer S	ervice Record Search, per request	\$5.25
Installation		
Unbundled	Loop, per loop	\$11.25
Unbundled	Port, per port	\$11.25
Loop Facili	ty Charge, per order	\$66.00
12.2 RESALE	SERVICES	
13. BILLING AN	D RECORDING	TBD
14. VERTICAL S	WITCHING SERVICES	
REF# ITE	ZM	
1 Spe	ed Call 8 (Changeable)	\$0.25
2 Spe	ed Call 30 (Changeable)	\$0.25
3 Can	cel Call Waiting	\$0.25
4 Call	Forward Variable	\$0.25
5 Call	Waiting	\$0.25
6 Dua	l Tone Multifrequency (DTMF)	\$0.25
7 Tee	n Service /Distinctive Ringing	\$0.25
8 Thr	ee-Way Calling	\$0.75
9 Acc	ount Codes for AFR	\$0.25
10 Add	On - Consultation Hold - Incoming Only	\$0.25
11 Atte	endant BL Verification	\$1.25

13 Attendant Conference \$4 14 Attendant Position busy \$4 15 Attendant Recall from Satellite \$2 16 Authorization codes for AFR \$0 17 Basic Business Group \$1 18 Dual Tone Multifrequency (DTMF) \$0 19 Station-to-Station Dialing (Intercom) \$4 20 Business Group Automatic Callback (BGAC) \$0 21 Business Group Cancel Call Waiting \$0 22 Call Forwarding Variable \$0 23 Business Group - Speed Call - 8	25 .00 .25 .50 .50 .25 .25 .25 .25 .25 .25
14Attendant Position busy\$415Attendant Recall from Satellite\$216Authorization codes for AFR\$017Basic Business Group\$118Dual Tone Multifrequency (DTMF)\$019Station-to-Station Dialing (Intercom)\$420Business Group Automatic Callback (BGAC)\$021Business Group Cancel Call Waiting\$022Call Forwarding Variable\$023Business Group - Speed Call - 8\$0	.00 .25 .50 .25 .25 .25 .25 .25 .25
15 Attendant Recall from Satellite \$2 16 Authorization codes for AFR \$0 17 Basic Business Group \$1 18 Dual Tone Multifrequency (DTMF) \$0 19 Station-to-Station Dialing (Intercom) \$4 20 Business Group Automatic Callback (BGAC) \$0 21 Business Group Cancel Call Waiting \$0 22 Call Forwarding Variable \$0 23 Business Group - Speed Call - 8	.25 .50 .25 .25 .25 .25 .25 .25
16 Authorization codes for AFR 17 Basic Business Group 18 Dual Tone Multifrequency (DTMF) 19 Station-to-Station Dialing (Intercom) 20 Business Group Automatic Callback (BGAC) 21 Business Group Cancel Call Waiting 22 Call Forwarding Variable 23 Business Group - Speed Call - 8 \$0	.50 .50 .25 .25 .25 .25 .25 .25
17 Basic Business Group \$1 18 Dual Tone Multifrequency (DTMF) \$0 19 Station-to-Station Dialing (Intercom) \$4 20 Business Group Automatic Callback (BGAC) \$0 21 Business Group Cancel Call Waiting \$0 22 Call Forwarding Variable \$0 23 Business Group - Speed Call - 8 \$0	.50 .25 .25 .25 .25 .25 .25
18 Dual Tone Multifrequency (DTMF) \$0 19 Station-to-Station Dialing (Intercom) \$4 20 Business Group Automatic Callback (BGAC) \$0 21 Business Group Cancel Call Waiting \$0 22 Call Forwarding Variable \$0 23 Business Group - Speed Call - 8 \$0	.25 .25 .25 .25 .25 .25
19 Station-to-Station Dialing (Intercom) \$4 20 Business Group Automatic Callback (BGAC) \$0 21 Business Group Cancel Call Waiting \$0 22 Call Forwarding Variable \$0 23 Business Group - Speed Call - 8 \$0	.25 .25 .25 .25 .25
20 Business Group Automatic Callback (BGAC) \$0 21 Business Group Cancel Call Waiting \$0 22 Call Forwarding Variable \$0 23 Business Group - Speed Call - 8 \$0	.25 .25 .25
21 Business Group Cancel Call Waiting \$0 22 Call Forwarding Variable \$0 23 Business Group - Speed Call - 8 \$0	.25 .25 .25
22Call Forwarding Variable\$023Business Group - Speed Call - 8\$0	.25
23 Business Group - Speed Call - 8 \$0	.25
04 Deigner Comp. Const. Coll. 20	25
24 Business Group - Speed Call - 30 \$0	
25 Business Group - Three Way Calling (TWC) \$0	.75
26 Business Set Access to Paging \$2	.50
27 Business Set Call Pick Up \$0	.25
28 Business Set Call Grp Intercom \$173	.25
29 Code Calling \$0	.50
30 Call Forward Busy Line \$0	.25
31 Call Forward Don't Answer \$0	.25
32 Call Forward Fixed \$0	.25
33 Call Forwarding - Incoming Only \$0	.25
34 Call Flip/Flop \$0	.25
35 Call Forwarding - Within Group \$0	.25
36 Call Hold \$0	.25
37 Circular Hunting \$0	.25
38 Control of Facilities \$0	.25
39 Conference Calling 6 way \$4	.00
40 Call Park \$0	.25
41 Call Pick-Up \$0	.25
42 Code Restriction and Diversion \$1	.50
43 Call Transfer Individual - All Calls \$0	.25
44 Call Waiting Originating \$0	.25
45 Call Waiting Terminating \$0	.25
	.25
47 Directed Call Pickup w/BI \$0	.25
48 Directed Call Pickup wo/BI \$0	

49	Dial Call Waiting	\$0.25
50	Remote Access to (Business Group) Features	\$0.25
51	Distinctive Ringing	\$0.25
52	Executive Busy Override	\$0.25
53	Expensive Route Warning Tone	\$0.25
54	Fixed Night Service - Call Fwd	\$0.25
55	Fixed Night Service - Key	\$2.25
56	Fully Restricted (Orig/Term)	\$0.50
57	Facility Restriction Level	\$1.50
58	Foreign Exchange Facilities	\$0.50
59	Last Number Redial	\$0.25
60	Loud Speaker Paging	\$0.75
61	Make Busy Key	\$1.00
62	Music on Hold	\$0.50
63	Off-hook Queuing	\$0.25
64	On-Hook Queuing	\$0.25
65	Preferential Multiline Hunting	\$0.25
66	Queuing	\$7.00
67	Recorded Telephone Dictation	\$0.75
68	Speed Calling Individual 1 Digit	\$0.25
69	Speed Calling Individual 2 Digit	\$0.25
70	Stop Hunt Key	\$1.00
71	Special Intercept Announcements	\$14.50
72	SMDR To Customer Premise	\$23.00
73	Station Message Detail Recording - RAO	\$1.25
74	Station Restricted (Orig/Term)	\$0.50
75	Time of Day Routing Control	\$0.50
76	Toll Restricted Service	\$1.25
77	Two-way Splitting	\$0.25
78	Uniform Call Distribution (UCD) Hunting	\$0.25
79	Voice/Data Protection	\$0.25
80	Auto Alt Rt	\$1.00
81	Auto Rt Sel	\$0.75
82	Meet Me Conf	\$38.75
83	Auto Call Bk	\$0.25
84	Anon Call Rej	\$0.25
85	Auto Recall	\$0.25

86	Call Num Deliver	\$0.25
87	Call Num DeliverBlk	\$0.25
88	Cust Ord Trace	\$0.25
89	Dist Ring/VIP	\$0.25
90	Select Call Accept	\$0.25
91	Select Call Frwd	\$0.25
92	Select Call Reject	\$0.25
93	Select Call Wait	\$0.25

(note 1) The Loop Facility Charge will apply when field work is required for establishment of a new unbundled loop service.

APPENDIX D

ACCESS SERVICE COORDINATION FOR JOINTLY PROVIDED ACCESS SERVICE

This Appendix sets forth the terms and conditions regarding Access Service Coordination for Jointly Provided Access Services. Both GTE and GST will herein be referred to as Local Exchange Carriers.

SECTION I

As recommended in the MECOB documents, both Local Exchange Carriers ("LEC"s) recognize the need exists for one "overall" service coordinator in the joint provisioning of access services. They mutually agree that a single LEC will act as the Access Service Coordinator ("ASC") and be the single point of contact for the Interexchange Carrier ("IC") for access services. They further agree the ASC will perform the responsibilities defined in Section III.

SECTION II ACCESS SERVICE COORDINATION DETERMINATION

Under a meet-point arrangement, the following Meet-Point Provisioning Procedures will establish which LEC will serve as the overall Access Service Coordinator ("ASC") and will identify the responsibilities of that ASC.

For Feature Groups ("FG"s) B, C, and D and Directory Assistance ("DA"), the LEC with the first point of switching will be the ASC. Per the FCC Tariffs, the first point of switching is defined as follows:

"The term 'First Point of Switching' denotes the first Telephone Company location at which switching occurs on the terminating end of a call proceeding from the customer premises to the terminating end office and, at the same time, the last Telephone Company location at which switching occurs on the originating path of a call proceeding from the originating end office to the customer premises" (customer designated location).

For Feature Group A service, the LEC with the dial tone location will be the ASC.

For Special Access, and non-multiplexed Hi-Cap service, the LEC with the IC POT (Point of Termination) location will be the ASC.

When multiplexed Hi-Caps are provided, the company with the multiplexer location for the multiplexed circuit is the ASC. This includes any two-point circuits riding the multiplexed Hi-Cap facility.

Appendix D - 1

For Wide Area Telecommunications Service ("WATS"), the LEC with the WATS service office will be the ASC.

For Multipoint Special Access, the LEC with the first bridge location will be the ASC.

For Jurisdictionally Interstate Service ("JIS"), (i.e., Cross Boundary and Contaminated Circuits where the transport portion of the service crosses a state line), the LEC serving the majority of access lines in the LATA will be the ASC.

All trouble reports should be reported to the ASC Company.

SECTION III RESPONSIBILITIES

The ASC will discharge all, but is not limited to, the responsibilities defined in this section in the performance of its duties.

For a given type of access service, the five areas of access responsibility (negotiation, design, installation, completion and maintenance) shall be under the control of a single ASC.

- A. Negotiation Addresses the coordination of the Access Service Order ("ASO") issuance, Firm Order Confirmation ("FOC") issuance, assignment of service intervals, common circuit ID, etc.
- B. Design The ASC will serve as the Engineering Control Office ("ECO") and will design and engineer the overall access service, but must coordinate the exchange of engineering information with the other LECs and with the IC.
- C. Installation The ASC will serve as the Maintenance Control Office ("MCO")

 LEC and will coordinate testing and completion functions with the other LECs and with the IC.
- D. The ASC will coordinate a common completion/billing start date which will be utilized by all involved LECs.
- E. Maintenance The ASC will serve as the point of contact for the customer/carrier for referral and clearing of reported trouble conditions. The ASC will coordinate with the other LECs any required joint testing.

The ASC will apply industry standards in all areas as recommended by the Exchange Carrier Standards Association ("ECSA"). The ASC will also be guided by recommendations from the OBF, NOF and GTE guidelines for meet-point provisioning.

If the previously defined ASC responsibilities are not discharged by the other Exchange Carrier in accordance with the previous paragraph, the ASC function will default to GTE.

APPENDIX E

RECIPROCAL COMPENSATION FOR CALL TERMINATION FOR RESALE AND IN CASES WHERE GST PURCHASES GTE'S UNBUNDLED SWITCHING

- 1. Reciprocal compensation does not apply in a resale environment.
- 2. The following compensation terms with prices, as specified in Appendix C, shall apply in all cases where GST purchases GTE's unbundled Local Switching:
 - 2.1 For Local intra-switch calls between lines connected to GTE's switch where GST has purchased GTE's unbundled Local Switching, the Parties agree to impose no call termination charges on each other. GTE's Local Switching charge will apply as described below where the call is:
 - 2.1.1 Originated by GST's customer and completed to a GTE customer:
 - 2.1.1.1 one Local Switching charge will apply to GST.
 - 2.1.2 Originated by GST's customer and completed to the customer of a third party LEC (not affiliated with GST) using GTE's unbundled Local Switching:
 - 2.1.2.1 one Local Switching charge will apply to GST.
 - 2.1.3 Originated by GST's customer and completed to another of GST's customers using GTE's unbundled Local Switching:
 - 2.1.3.1 one Local Switching charge will apply to GST.
 - 2.1.4 Originated by a GTE customer and terminated to a GST customer using GTE's unbundled Local Switching.
 - 2.1.4.1 No Local Switching charge will apply.
 - 2.1.5 Originated by the customer of a third party LEC (not affiliated with GST) using GTE's unbundled Local Switching and terminated to GST's customers using GTE's unbundled Local Switching.
 - 2.1.5.1 No Local Switching charge will apply to GST.
 - 2.2 For Local inter-switch calls where GST has purchased GTE's unbundled Local Switching charges will apply to as described below where the call is:
 - 2.2.1 Originated from GST's end-user customer using GTE's unbundled Local Switching and completed to a GTE customer.

Appendix E - 1

- 2.2.1.1 one Local Switching charge at the originating office will apply to GST.
- 2.2.1.2 Common Transport charges will apply to GST when GST uses GTE's transport. If GST arranges for the transport, no transport charge will apply to GST.
- 2.2.1.3 (For call termination) One Call termination charge will apply to GST unless Bill and Keep applies as specified in Article IV of this Agreement.
- 2.2.2 Originated from GST's customer using GTE's unbundled Local Switching and completed to a third party LEC (not affiliated with GST) customer using GTE's unbundled Local Switching.
 - 2.2.2.1 One Local Switching charge at the originating office will apply to GST.
 - 2.2.2.2 Common Transport charges will apply when GST uses GTE's transport. If GST or the third party arranges for the transport, no transport will apply to GST.
- 2.2.3 Originated from GST's customer using GTE's unbundled Local Switching and completed to the interconnected network of a third party LEC (not affiliated with GST).
 - 2.2.3.1 One Local Switching charge at the originating office will apply to GST.
 - 2.2.3.2 Common Transport charges will apply to GST when GST uses GTE's transport, and mileage shall be measured between the originating office and the IP of the third party's network. If GST or the third party arranges for the transport, no transport will apply to GST.
- 2.2.4 Originated from GST's customer using GTE's unbundled Local Switching and completed to GST's customer using GTE's unbundled Local Switching.
 - 2.2.4.1 One Local Switching charge at the originating office will apply to GST.
 - 2.2.4.2 Common Transport charges will apply to GST when GST uses GTE's transport. If GST arranges for the transport, no transport will apply to GST.
 - 2.2.4.3 One Local Switching charge at the terminating office will apply to GST.

- 2.2.5 Originated by a GTE customer and terminated to GST's customer using GTE's unbundled Local Switching.
 - 2.2.5.1 One Local Switching Charge at the terminating office will apply to GST. If GST arranges for the transport, common transport charges will apply to GTE.
 - 2.2.5.2 One Call termination charge will apply to GTE unless bill-and-keep applies as specified in Article IV of this Agreement.
- 2.2.6 Originated by a customer of a third party LEC (not affiliated with GST) using GTE's unbundled Local Switching and terminated to GST's customer using GTE's unbundled Local Switching.
 - 2.2.6.1 One Local Switching charge at the terminating office will apply to GST.
- 2.2.7 Originated by a customer on the interconnected network of a third party LEC (not affiliated with GST) and terminated to GST's customer using GTE's unbundled Local Switching.
 - 2.2.7.1 One Local Switching charge at the terminating office will apply to GST.
- 2.3 For intraLATA toll calls where GST has purchased GTE's unbundled Local Switching, charges will apply as follows:
 - 2.3.1 Originated by GST's customer and completed to a GTE customer.
 - 2.3.1.1 One Local Switching charge at the originating office will apply.
 - 2.3.1.2 Intrastate Common Transport charges between the two offices will apply to GST when GST uses GTE's transport. If GST arranges for the transport, no transport charge will apply to GST.
 - 2.3.1.3 GTE intrastate switched access charges at the terminating office will apply to GST.
 - 2.3.2 Originated by GST's customer using GTE's unbundled local switching and completed to the customer of a third party LEC (not affiliated with GST) using GTE's unbundled Local Switching in a distant end office.
 - 2.3.2.1 One Local Switching charge at the originating office will apply to GST.

- 2.3.2.2 Intrastrate Common Transport charges between the two offices will apply to GST when GST uses GTE's transport. If GST arranges for the transport, no transport charge will apply to GST.
- 2.3.3 Originated by GST's customer using GTE's unbundled local switching and completed to the network of a third party LEC (not affiliated with GST) interconnected with GTE's network.
 - 2.3.3.1 One Local Switching charge at the originating office will apply to GST.
 - 2.3.3.2 Intrastate Common Transport charges will apply to GST when GST uses GTE's transport, and mileage shall be measured between the originating office and the IP of the third party's network. If GST or the third party arranges for the transport, no Transport Charge will apply to GST.
- 2.3.4 Originated by GST's customer using GTE's unbundled local switching and completed to another of GST's customer using GTE's unbundled local switching.
 - 2.3.4.1 One Local Switching charge at the originating office will apply to GST.
 - 2.3.4.2 Intrastate Common Transport charges will apply to GST when GST uses GTE's transport. If GST arranges for the transport, no transport charge will apply to GST.
 - 2.3.4.3 One Local Switching charge at the terminating office will apply to GST.
- 2.3.5 Originated by a GTE customer and terminated to GST's customer using GTE's unbundled Local Switching.
 - 2.3.5.1 One Local Switching charge at the terminating office will apply to GST. If GST arranges for the transport, common Transport Charges will apply to GTE.
 - 2.3.5.2 One GST intrastate switched access local switching charge at the terminating office will apply to GTE.
- 2.3.6 Originated by the customer of a third party LEC (not affiliated with GST) using GTE's unbundled Local Switching in a distant end office and terminated to GST's customer using GTE's unbundled Local Switching.
 - 2.3.6.1 One Local Switching charge at the terminating office will apply to GST.

- 2.3.7 Originated by a customer on the network of a third party LEC (not affiliated with GST) interconnected with GTE's network and terminated to GST's customer using GTE's unbundled Local Switching.
 - 2.3.7.1 One Local Switching charge at the terminating office will apply to GST.
- 2.4 For intrastate Switched Access calls where GST is using GTE's unbundled Local Switching for calls originated to or terminated from an IXC for completion:
 - 2.4.1 For calls originated from GST's customer an IXC.
 - 2.4.1.1 One Local Switching charge at the originating office.
 - 2.4.2 For calls terminating to GST's customer using GTE's unbundled local switching from an IXC.
 - 2.4.2.1 One Local Switching charge at the terminating office will apply to GST.
- 2.5 For interstate Switched Access calls where GST is using GTE's unbundled Local Switching for calls originated to or terminated from an IXC.
 - 2.5.1 For calls originated from GST's customer using GTE's unbundled local switching to an IXC.
 - 2.5.1.1 One Local Switching charge at the originating office will apply to GST.
 - 2.5.2 For calls terminating to GST's customer using GTE's unbundled local switching from an IXC switch.
 - 2.5.2.1 One Local Switching charge at the terminating office will apply to GST.