# **APPENDIX ITR** (Interconnection Trunking Requirements)

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## APPENDIX ITR Interconnection Trunking Requirements

# 1. INTRODUCTION

- 1.1 This Appendix sets forth terms and conditions for Interconnection provided by TDS TELECOM and US LEC.
- 1.2 This Appendix provides descriptions of the trunking requirements between US LEC and TDS TELECOM. All references to incoming and outgoing trunk groups are from the perspective of US LEC. The paragraphs below describe the required and optional trunk groups for local and mass calling.
- 1.3 Local trunk groups may only be used to transport traffic between the Parties End Users.

# 2. **DEFINITIONS**

2. "Network Interconnection Methods" (NIM) designates facilities established between the Parties Networks.

# 3. ONE-WAY AND TWO-WAY TRUNK GROUPS

- 3.1 One-way trunk groups for ancillary services (e.g. mass calling) can be established between the Parties. Ancillary trunk groups will utilize Signaling System 7 (SS7) or multi-frequency (MF) signaling protocol, with SS7 signaling preferred whenever possible. The originating Party will have administrative control of oneway trunk groups.
- 3.2 One-way or Two-way trunk groups for local, IntraLATA and InterLATA traffic may be established between the Parties. These trunk groups will utilize Signaling System 7 (SS7) or multi-frequency (MF) signaling protocol, with SS7 signaling preferred whenever possible. Where two-way trunks are utilized, they shall be jointly provisioned and maintained. The costs for two-way trunk groups shall be shared by the Parties based upon the percentage of each Party's traffic carried over a particular trunk group. If that percentage cannot be determined, the costs of providing such trunking shall be shared equally by the Parties, subject to subsequent true-up based on the amount of traffic actually carried over such trunk groups. Where one-way trunking is utilized, such trunking will be for the sole use and at the sole expense of the Originating Company. For administrative consistency US LEC will have control for the purpose of issuing Access Service Requests (ASRs) on two-way groups and the Originating Company will have control on one-way groups. TDS TELECOM will not assess any ordering or installation charges associated with two-way trunk groups US LEC orders that

carry shared traffic. Both Parties reserve the right to issue ASRs, if so required, in the normal course of business.

- 3.3 The Parties will negotiate the appropriate direct trunking configuration, whether one-way or two-way giving consideration to relevant factors, including but not limited to, existing network configuration, administrative ease, any billing system and/or technical limitations and network efficiency. Any disagreement regarding appropriate trunk configuration shall be subject to the dispute resolution process in Section 16 of the General Terms and Conditions.
- 3.4 Where two-way trunking is utilized, the Parties agree to exchange traffic data on two-way trunks and to implement such an exchange within three (3) months of the date the trunk groups begin passing live traffic, or another date as agreed to by the Parties. The Parties agree to the electronic exchange of data where possible.

## 4. TRUNKING

- 4.1 Indirect trunks carry traffic from one Party's network to the other Party's network and are switched by a third party LEC tandem transit provider. Direct trunks carry traffic from one Party's network to the other Party's network and are not switched by a third party tandem transit provider. The Originating Party will route overflow traffic to the appropriate Tandem when direct trunking is utilized.
- 4.2 All traffic received by TDS TELECOM via a direct trunk group from US LEC must terminate in the End Office, i.e. no Tandem switching will be performed in the End Office. All traffic received by US LEC via a direct trunk group from TDS TELECOM must terminate in the End Office, i.e., no Tandem switching will be performed in the End Office. Where End Office functionality is provided in a remote End Office of a host/remote configuration, the Interconnection for that remote End Office is only available at the host switch when direct trunking is utilized. The number of digits to be received by the terminating Party shall conform to standard industry practices; but in no case shall the number of digits be less than seven (7).

# 4.3 <u>Trunk Configuration</u>

- 4.3.1 Trunk Configuration -
  - 4.3.1.1 Where available and upon the request of the other Party, each Party shall cooperate to ensure that its trunk groups are configured utilizing the B8ZS ESF protocol for 64 kbps Clear Channel Capability (64CCC) transmission to allow for ISDN interoperability between the Parties' respective networks. Trunk groups configured for 64CCC and carrying Circuit Switched Data (CSD) ISDN calls shall carry the appropriate Trunk Type Modifier

in the CLCI-Message code. Trunk groups configured for 64CCC and not used to carry CSD ISDN calls shall carry a different appropriate Trunk Type Modifier in the CLCI-Message code.

# 5. TRUNK GROUPS

- 5.1 The following trunk groups shall be used to exchange local traffic between US LEC and TDS TELECOM.
- 5.2 Local Interconnection Trunk Group(s) in Each Exchange
  - 5.2.1 Direct Trunking
    - 5.2.1.1 The Parties may establish direct primary high usage Local Interconnection trunk groups for the exchange of Local traffic where actual demand is twenty four (24) or more trunks, as described in Sections 4.1 and 4.2.
- 5.3 For each NXX code used by either Party, the Party to whom the NXX is assigned must maintain network facilities (whether owned or leased) used to actively provide, in part, local Telecommunications Services in the geographic area assigned to such NXX code.
- 5.4 TDS TELECOM will not block switched access customer traffic delivered to any TDS TELECOM Office for completion on US LEC's network. The Parties understand and agree that InterLATA trunking arrangements are available and functional only to/from switched access customers who directly connect with any TDS TELECOM End Office. TDS TELECOM shall have no responsibility to ensure that any switched access customer will accept traffic that US LEC directs to the switched access customer. TDS TELECOM agrees to furnish US LEC, upon request, a list of those IXCs which also Interconnect with TDS TELECOM's End Office(s).
- 5.5 US LEC shall provide all SS7 signaling information including, without limitation, charge number and originating line information ("OLI"). For terminating FGD, TDS TELECOM will pass all SS7 signaling information including, without limitation, CPN if it receives CPN from FGD carriers. All privacy indicators will be honored. Where available, network signaling information such as transit network selection ("TNS") parameter, carrier identification codes ("CIC") (CCS platform) and CIC/OZZ information (non-SS7 environment) will be provided by US LEC 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.
- 5.6 <u>High Volume Call In (HVCI) / Mass Calling (Choke) Trunk Group:</u>

If US LEC should acquire an HVCI/Mass Calling customer, i.e. a radio station, US LEC shall provide written notification to TDS TELECOM. TDS TELECOM reserves the option to provide either a physical or "virtual" trunk group, with a virtual group preferred where technically feasible, for HVCI/Mass Calling Trunking.

# 6. FORECASTING RESPONSIBILITIES

- 6. US LEC agrees to provide an initial forecast for establishing the initial Interconnection facilities. TDS TELECOM shall review this forecast and if it has any additional information that will change the forecast shall provide this information to US LEC. The Parties recognize that, to the extent historical traffic data can be shared between the Parties, the accuracy of the forecasts will improve. US LEC shall provide subsequent forecasts on a semi-annual basis. US LEC forecasts should include yearly forecasted trunk quantities for all appropriate trunk groups described in this Appendix for a minimum of three years. Forecasts shall be non-binding on both TDS TELECOM and US LEC. TDS TELECOM shall take US LEC's forecasts into consideration in its network planning, and shall exercise its best efforts to provide the quantity of interconnection trunks and facilities forecasted by the US LEC. However, the development and submission of forecasts shall not replace the ordering process in place for interconnection trunks and facilities, and the provision of the forecasted quantity of interconnection trunks and facilities is subject to capacity existing at the time the order is submitted. Furthermore, the development and receipt of forecasts does not imply any liability for failure to perform if capacity is not available for use at the forecasted time. The Parties agree to the use of Common Language Location Identification (CLLI) coding and Common Language Circuit Identification for Message Trunk coding (CLCI-MSG) which is described in TELCORDIA TECHNOLOGIES documents BR795-100-100 and BR795-400-100 respectively. Inquiries pertaining to use of TELCORDIA TECHNOLOGIES Common Language Standards and document availability should be directed to TELCORDIA TECHNOLOGIES at 1-800-521-2673. Analysis of trunk group performance, and ordering of relief if required, will be performed on a monthly basis at a minimum (trunk servicing).
- 6.2 The semi-annual forecasts shall include:

Yearly forecasted trunk quantities (which include measurements that reflect actual, End Office Local Interconnection trunks, and Tandem subtending Local Interconnection End Office equivalent trunk requirements) for a minimum of three (current and plus 1 and plus 2) years; and A description of major network projects anticipated for the following six months. Major network projects include Local Interconnection trunking or network rearrangements, orders greater than four (4) DS1's to a single Central Office, or other activities that are reflected by a significant increase or decrease in trunking demand for the following forecasting period.

The Parties shall agree on a forecast provided above to ensure efficient utilization of trunks. Orders for trunks that exceed forecasted quantities for forecasted locations will be accommodated as facilities and/or equipment becomes available. Parties shall make all reasonable efforts and cooperate in good faith to develop alternative solutions to accommodate orders when facilities are not available.

- 6.3 US LEC shall be responsible for forecasting two-way trunk groups. TDS TELECOM shall be responsible for forecasting and servicing the one way trunk groups terminating to US LEC and US LEC shall be responsible for forecasting and servicing the one way trunk groups terminating to TDS TELECOM, unless otherwise specified in this Appendix. Standard trunk traffic engineering methods will be used by the Parties.
- 6.4 If forecast quantities are in dispute, the Parties shall meet, either in person or via conference call to reconcile the differences.
- 6.5 Each Party shall provide a specified point of contact for planning, forecasting and trunk servicing purposes.

# 7. TRUNK DESIGN BLOCKING CRITERIA

7.1 Trunk requirements for forecasting and servicing shall be based on the blocking objectives shown in Table 1. Trunk requirements shall be based upon time consistent average busy season busy hour twenty-one (21) day averaged loads applied to industry standard Neal-Wilkinson Trunk Group Capacity algorithms (use Medium day-to-day Variation and 1.0 Peakedness factor until actual traffic data is available).

# TABLE 1

Trunk Group Type	Design Blocking Objective
Local Direct End Office (Primary High)	as mutually agreed upon
Local Direct End Office (Final)	1%

# 8. TRUNK SERVICING

- 8. Orders between the Parties to establish, add, change or disconnect trunks shall be processed by using an Access Service Request (ASR). US LEC will have administrative control for the purpose of issuing ASR's on two-way trunk groups US LEC orders that carry shared traffic. Where one-way trunks are used (as discussed in section 3), the Originating Company will issue ASRs. The Parties agree that neither Party shall alter trunk sizing on two-way trunk groups without first notifying the other Party.
- 8.2 The Parties jointly will manage the capacity of two-way Local Interconnection Trunk Groups. Either Party may send an ASR to the other Party to trigger changes to one-way Local Interconnection Trunk Groups based on capacity assessment.
- 8.3 Either Party may issue an ASR when additional capacity is required to reduce measured blocking to objective design blocking levels based upon analysis of trunk group data. The ordering Party will note "Service Affecting" on the ASR. Either Party upon receipt of an ASR in a blocking situation will issue a Firm Order Confirmation (FOC) to the other Party within three (3) business days after receipt of the ASR.
- 8.4 Underutilization:

Underutilization of Interconnection trunks and facilities exists when provisioned capacity is greater than the current need. Those situations where more capacity exists than actual usage requires, and the Parties disagree on the quantity of trunks to disconnect, will be handled via the dispute resolution process detailed in the GT&C Section 16.

8.5 In all cases, either Party upon receipt of an ASR will issue a FOC to the other Party:

Within three (3) business days after receipt of the ASR.

Where facilities are available, the Parties will agree upon a ten (10) business day interval for provisioning trunk groups.

8:6 Projects require the coordination and execution of multiple orders or related activities between and among TDS TELECOM and US LEC 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.

Orders greater than four (4) DS-1's to a single Central Office, shall be submitted at the same time, and their implementation shall be jointly planned and coordinated.

US LEC will be responsible for engineering its network on its side of the Point of Interconnection (POI). TDS TELECOM will be responsible for engineering its network on its side of the POI.

Where facilities are available, due dates for the installation of Local Interconnection Trunks covered by this Appendix shall be no longer than ten (10) business days from receipt of a request by either Party. If either US LEC or TDS TELECOM is unable to or not ready to perform Acceptance Tests, or is unable to accept the Local Interconnection Service Arrangement trunk(s) by the due date, the Parties will reschedule the date no more than seven (7) days from the original date.

Utilization shall be defined as Trunks Required as a percentage of Trunks In Service. Trunks Required shall be determined using methods described in Section 6.0 using Design Blocking Objectives stated in section 7.1.

# 9. TRUNK DATA EXCHANGE

- 9. Each Party agrees to service trunk groups to the foregoing blocking criteria in a timely manner when trunk groups exceed measured blocking thresholds on an average time consistent busy hour for a twenty-one (21) day study period. The Parties agree that twenty-one (21) days is the study period duration objective. However, a study period on occasion may be less than twenty-one (21) days but at minimum must be at least three (3) business days to be utilized for engineering purposes, although with less statistical confidence.
- 9.2 Exchange of traffic data enables each Party to make accurate and independent assessments of trunk group service levels and requirements. Parties agree to establish a timeline for implementing an exchange of traffic data. Implementation shall be within three (3) months of the date, or such date as agreed upon, that the trunk groups begin passing live traffic. The traffic data to be exchanged will be the Originating Attempt Peg Count, Usage (measured in Hundred Call Seconds), Overflow Peg Count, and Maintenance Usage (measured in Hundred Call Seconds) on a seven (7) day per week, twenty-four (24) hour per day, fifty-two (52) weeks per year basis. These reports shall be made available at a minimum on a semi-annual basis upon request. Exchange of data on one-way groups is optional.

# 10. NETWORK MANAGEMENT

#### **Restrictive Controls**

10.1.1 Either Party may use protective network traffic management controls such as 7-digit and 10-digit code gaps set at appropriate levels on traffic toward

each other's network, when required, to protect the public switched network from congestion due to facility failures, switch congestion, or failure or focused overload. US LEC and TDS TELECOM will immediately notify each other of any protective control action planned or executed.

# **Expansive Controls**

10.2.1 Where 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.

## Mass Calling

10.3.1 US LEC and TDS TELECOM shall cooperate and share pre-planning information regarding cross-network call-ins expected to generate large or focused temporary increases in call volumes.

# 11. APPLICABILITY OF OTHER RATES, TERMS AND CONDITIONS

Every interconnection and service provided hereunder shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection or service.

# APPENDIX NIM (NETWORK INTERCONNECTION METHODS)

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## APPENDIX NIM (NETWORK INTERCONNECTION METHODS)

# 1. INTRODUCTION

- 1 This Appendix sets forth the terms and conditions that Network Interconnection Methods (NIM) are provided by TDS TELECOM and US LEC. This Appendix describes the physical architecture for Interconnection of the Parties' facilities and equipment for the transmission and routing of Telephone Exchange Service traffic and Exchange Access traffic between the respective Customers of the Parties; provided, however, Interconnection may not be used solely for the purpose of originating a Party's own interexchange traffic.
- 1.2 Network Interconnection Methods (NIMs) include, but are not limited to, Indirect Interconnection; Leased Facilities Interconnection; Fiber Meet Interconnection; and other methods as mutually agreed to by the Parties.
  - 1.2.1 Trunking requirements associated with Interconnection are contained in Appendix ITR.
- 1.3 TDS TELECOM shall provide Interconnection for US LEC's facilities and equipment for the transmission and routing of telephone exchange service and exchange access, at a level of quality equal to that which TDS TELECOM provides itself, a subsidiary, an affiliate, or any other party to which TDS TELECOM provides Interconnection and on rates, terms and conditions that are just, reasonable and non-discriminatory.
- 1.4 The Parties shall effect an Interconnection that is efficient, fair and in a manner that is mutually agreeable to the Parties.

# 2. PHYSICAL ARCHITECTURE

2.1 TDS TELECOM's network is partly comprised of End Office switches that serve IntraLATA, InterLATA, Local, and EAS traffic. TDS TELECOM's network architecture in any given local exchange area and/or LATA can vary markedly from another local exchange area/LATA. Using one or more of the NIMs herein, the Parties agree to the physical architecture plans for the Nashville, Knoxville and Memphis LATAs as contained in Exhibit A of the Appendix and made a part hereof. The physical architecture plan for other LATAs will be completed within fifteen (15) days from US LEC's written request for interconnection contingent upon the Parties' mutual agreement on the architecture. US LEC and TDS TELECOM agree to Interconnect their networks through existing and/or new Interconnection facilities between US LEC switch(es) and TDS TELECOM's End Office(s). Where the Parties elect to interconnect via direct trunking the physical location of US LEC's switch(es) and TDS TELECOM End Office switch(es) to be interconnected, the facilities that will connect the two networks, the timelines for completion of all major tasks, and which Party will provide (be financially responsible for) the Interconnection facilities will be identified at a planning meeting prior to the issuance of direct trunking interconnection facility requests.

2.2 <u>Points of Interconnection (POIs)</u>: A Point of Interconnection (POI) is the physical point that establishes the technical interface, the test point, and the operational and financial responsibility hand-off point between US LEC and TDS TELECOM for the local interconnection of their networks.

When the Parties interconnect via indirect trunking, as specified in Appendix ITR Section 4, the parties agree that the POI is located at the third party LEC tandem used to transit traffic between the Parties' networks. Each Party is responsible for the appropriate sizing, operation and maintenance of the transport facility to the POI. Exhibit A will be updated to reflect any additions or changes to the POI(s).

When either Party requests direct trunking as specified in Appendix ITR Section 4, the parties shall mutually agree on the selection of new POIs. Criteria to be used in determining POIs include technical feasibility, existing facility capacity, location of existing POIs, traffic volumes, relative costs, future capacity needs, etc. Agreement to the location of POIs will be based on the network architecture existing at the time the POI(s) is/are negotiated. In the event either Party makes subsequent changes to its network architecture, including but not limited to trunking changes or adding new switches, then the Parties will negotiate new POIs if required. Exhibit A will be updated as necessary to reflect any additions or changes to the mutually agreed upon POIs.

- 2.2.3 Each Party is responsible for the facilities to its side of the POI(s) and may utilize any method of Interconnection described in this Appendix. At least one POI must be identified for each LATA where TDS TELECOM and US LEC interconnect indirectly and provide service. Additional POIs may be established for each central office switch where TDS TELECOM and US LEC interconnect directly, as specified in Appendix ITR Section 4.
- 2.3 Either Party, when initiating major projects that affect the other Party, must provide thirty (30) days written notice of any changes to the physical architecture plan.
- 2.4 Each Party is solely responsible for the facilities that carry OS/DA, 911 or mass calling for their respective End Users.
- 2.5 <u>Technical Interfaces</u>

The Interconnection facilities provided by each Party shall be formatted using B8ZS with Extended Superframe format framing.

Electrical handoffs at the POI(s) will be DS1, DS3 or STS-1 as mutually agreed to by the parties. When a DS3 or STS-1 handoff is agreed to by the Parties, TDS TELECOM will provide any multiplexing required for DS1 facilities or trunking at their end and US LEC will provide any DS1 multiplexing required for facilities or trunking at their end.

# 3. METHODS OF INTERCONNECTION

## 3. <u>Indirect Interconnection</u>

Each party shall be financially and operationally responsible for ensuring that it has facilities in place to each third party LEC tandem used to transit traffic between the parties' networks.

If traffic volumes grow to a point where it is economically advantageous to provide a direct connection between TDS TELECOM and US LEC, either party may request direct trunking as specified in Appendix ITR Section 4. The parties agree to negotiate in good faith to reach agreement to accommodate such a request.

## 3.2 Leased Facility Interconnection ("LFI")

3.2 Where facilities exist, either Party may lease facilities from the other Party pursuant to applicable tariff.

#### 3.3 Fiber Meet Interconnection

Fiber Meet Interconnection between TDS TELECOM and US LEC can occur at any mutually agreeable, economically and technically feasible point(s) between US LEC's premises and a TDS TELECOM End Office.

Where the Parties interconnect their networks pursuant to a Fiber Meet, the Parties shall jointly engineer and operate this Interconnection as a single point-to-point linear Synchronous Optical NETwork (SONET) system. Administrative control of the SONET system shall be mutually agreed upon by the Parties. Interconnection trunks, trunks used to provide ancillary services as described in Section 5 of Appendix ITR, or direct leased customer connections may be provisioned over this facility.

Neither Party will be given the IP address or allowed to access the Data Communications Channel ("DCC") of the other Party's Fiber Optic Terminal (FOT). The Fiber Meet will be designed so that each Party may, as far as is technically feasible, independently select the transmission, multiplexing, and fiber terminating equipment to be used on its side of the POI(s). The Parties will work cooperatively to achieve equipment and vendor compatibility of the FOT equipment. Requirements for such Interconnection specifications will be defined in joint engineering planning sessions between the Parties. The Parties may share the investment of the fiber as mutually agreed. The Parties will use good faith efforts to develop and agree on these facility arrangements within ninety (90) days of the determination by the Parties that such specifications shall be implemented, and in any case, prior to the establishment of any Fiber Meet arrangements between them.

- 3.3.4 There are four basic Fiber Meet design options.
  - 3.3.4.1 Design One: US LEC's fiber cable (four, or some integral multiple thereof, fibers) and TDS TELECOM's fiber cable (four, or some integral multiple thereof, fibers) are connected at an economically and technically feasible point between the US LEC and TDS TELECOM locations. This Interconnection point would be at a mutually agreeable location approximately midway between the two. The Parties fiber cables would be terminated on fiber termination panel(s) and then cross-connected with jumpers jointly provided by the Parties as discussed below under the Fiber Termination Point options section. Each Party would supply a fiber optic terminal at their respective end. The POI would be at the fiber termination panel at the mid-point meet.
  - 3.3.4.2 Design Two: US LEC will provide fiber cable to the last entrance (or TDS TELECOM designated) manhole at the TDS TELECOM's End Office switch. TDS TELECOM shall make all necessary preparations to receive and to allow and enable US LEC to deliver fiber optic facilities into that manhole. US LEC will provide a sufficient length of Optical Fire Resistant (OFR) cable for TDS TELECOM to pull the fiber cable through the TDS TELECOM cable vault and terminate on the TDS TELECOM fiber distribution frame (FDF) in TDS TELECOM's office. US LEC shall deliver and maintain such strands wholly at its own expense up to the POI. TDS TELECOM shall take the fiber from the manhole and terminate it inside TDS TELECOM's office on the FDF at TDS TELECOM's expense. In this case the POI shall be at the TDS TELECOM designated manhole location.
  - 3.3.4.3 Design Three: TDS TELECOM will provide fiber cable to the last entrance (or US LEC designated) manhole at the US LEC location. US LEC shall make all necessary preparations to receive and to allow and enable TDS TELECOM to deliver fiber optic facilities into that manhole. TDS TELECOM will provide a sufficient length of Optical Fire Resistant (OFR) cable for US LEC to run the

fiber cable from the manhole and terminate on the US LEC fiber distribution frame (FDF) in US LEC's location. TDS TELECOM shall deliver and maintain such strands wholly at its own expense up to the POI. US LEC shall take the fiber from the manhole and terminate it inside US LEC's office on the FDF at US LEC's expense. In this case the POI shall be at the US LEC designated manhole location.

3.3.4.4 Design Four: Both US LEC and TDS TELECOM each provide two fibers between their locations. This design may only be considered where existing fibers are available and there is a mutual benefit to both Parties. TDS TELECOM will provide the fibers associated with the "working" side of the system. US LEC will provide the fibers associated with the "protection" side of the system. The Parties will work cooperatively to terminate each other's fiber in order to provision this joint SONET ring or point-to-point linear system. Both Parties will work cooperatively to determine the appropriate technical handoff for purposes of demarcation and fault isolation. The POI will be defined as being at the TDS TELECOM location.

The US LEC location includes FOTs, multiplexing and fiber required to terminate the optical signal provided from TDS TELECOM. This location is US LEC's responsibility to provision and maintain.

The TDS TELECOM location includes all TDS TELECOM FOTs, multiplexing and fiber required to terminate the optical signal provided from US LEC. This location is TDS TELECOM's responsibility to provision and maintain.

TDS TELECOM and US LEC shall, solely at their own expense, procure, install, and maintain the agreed-upon FOT equipment in each of their locations where the Parties established a Fiber Meet. Capacity shall be sufficient to provision and maintain all trunk groups prescribed by Appendix ITR for the purposes of Interconnection.

Each Party shall provide its own, unique source for the synchronized timing of its FOT equipment. Each timing source must be Stratum-3 traceable and cannot be provided over DS0/DS1 facilities, via Line Timing; or via a Derived DS1 off of FOT equipment. Both Parties agree to establish separate and distinct timing sources that are not derived from the other, and meet the criteria identified above.

US LEC and TDS TELECOM will mutually agree on the capacity of the FOT(s) to be utilized based on equivalent DS1s, DS3s or STS-1s. Each

Party will also agree upon the optical frequency and wavelength necessary to implement the Interconnection. The Parties will develop and agree upon methods for the capacity planning and management for these facilities, terms and conditions for over provisioning facilities, and the necessary processes to implement facilities as indicated below. These methods will meet quality standards as mutually agreed to by US LEC and TDS TELECOM.

# 4. **RESPONSIBILITY FOR ENVIRONMENTAL CONTAMINATION**

- 4.1 Each Party will be solely responsible at it own expense for the proper handling, storage, transport, treatment, disposal and use of all Hazardous Substances by such Party and its contractors and agents. "Hazardous Substances" includes those substances:
  - 4.1.1 included within the definition of hazardous substance, hazardous waste, hazardous material, toxic substance, solid waste or pollutant or contaminant under any Applicable Law, and

listed by any governmental agency as a hazardous substance.

US LEC will in no event be liable to TDS TELECOM for any costs whatsoever resulting from the presence or Release of any Environmental Hazard, including Hazardous Substances, that US LEC did not introduce to the affected work location. TDS TELECOM will indemnify, defend (at US LEC's request) and hold harmless US LEC, 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 arises out of or result from (i) any Environmental Hazard that TDS TELECOM, its contractors or agents introduce to the work locations or (ii) the presence or Release of any Environmental Hazard for which TDS TELECOM is responsible under Applicable Law.

4.1.4 TDS TELECOM will in no event be liable to US LEC for any costs whatsoever resulting from the presence or Release of any Environmental Hazard that TDS TELECOM did not introduce to the affected work location. US LEC will indemnify, defend (at TDS TELECOM's request) and hold harmless TDS TELECOM, 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 US LEC, its contractors or agents introduce to the work locations or ii) the presence or Release of any Environmental Hazard for which US LEC is responsible under Applicable Law.

# 5. **RESPONSIBILITIES OF THE PARTIES**

5.1 If US LEC determines to offer local exchange service within a LATA where TDS TELECOM provides local exchange service, US LEC shall provide thirty (30) days written notice to TDS TELECOM. Such notice shall include (i) US LEC's Switch address, type, and CLLI; (ii) US LEC's requested Interconnection activation date (if direct trunking is required); and (iii) a non-binding forecast of US LEC's trunking and facilities requirements.

Upon receipt of US LEC's notice to interconnect, the Parties shall schedule a meeting to negotiate and mutually agree on network architecture as discussed above. The Interconnection activation date for network, switching, and facility changes shall be established based on then-existing work force and load, the scope and complexity of the requested Interconnection and other relevant factors.

5.3 If US LEC deploys additional switches after the Effective Date or otherwise wishes to establish Interconnection with additional TDS TELECOM Central Offices, US LEC shall provide written notice to TDS TELECOM to establish such Interconnection. The terms and conditions of this Agreement shall apply to such Interconnection. If TDS TELECOM deploys additional End Office switches in a local exchange after the effective date or otherwise wishes to establish Interconnection with additional US LEC Central Offices in such local exchange, TDS TELECOM shall be entitled, upon written notice to US LEC, to establish such Interconnection and the terms and conditions of this Agreement shall apply to such Interconnection.

US LEC and TDS TELECOM shall work cooperatively to install and maintain a reliable network. US LEC and TDS TELECOM shall exchange appropriate information (e.g., maintenance contact numbers, network information, information required to comply with law enforcement and other security agencies of the federal and state government and such other information as the Parties shall mutually agree) to achieve this desired reliability.

- 5.5 US LEC and TDS TELECOM will review engineering requirements as required and establish semi-annual forecasts for facilities utilization provided under this Appendix.
- 5.6 US LEC and TDS TELECOM shall:
  - 5.6.1 Provide trained personnel with adequate and compatible test equipment to work with each other's technicians.
  - 5.6.2 Notify each other when there is any change affecting the service requested, including the due date.

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5.6.3 Recognize that a facility handoff point must be agreed to that establishes the demarcation for maintenance and provisioning responsibilities for each party on their side of the POI.

# 6. JOINT FACILITY GROWTH PLANNING

6.1 Facilities will be planned for in accordance with the trunk forecasts exchanged between the Parties and are to be deployed in accordance with the processes described in Appendix ITR.

# 7. APPLICABILITY OF OTHER RATES, TERMS AND CONDITIONS

7.1 Every interconnection and service provided hereunder shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection or service.

# Concord Telephone – OCN 0559 Knoxville LATA - 474



# Humphreys County – OCN 0566 Nashville LATA - 470



# Tellico Telephone – OCN 0578 Knoxville LATA - 474



# Tennessee Telephone – OCN 0575 Nashville LATA - 470





# Tennessee Telephone – OCN 0575 Knoxville LATA - 474



# Tennessee Telephone – OCN 0575 Memphis LATA - 0468



\* and subtending remotes

# **APPENDIX NUMBER PORTABILITY**

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# APPENDIX NP NUMBER PORTABILITY

#### 1 INTRODUCTION

- 1.1 This Appendix sets forth terms and conditions for Number Portability provided by TDS TELECOM and US LEC.
- 1.2 The prices at which the Parties agree to provide each other with Interim Number Portability (INP) are contained in the applicable Appendix PRICING. The Parties agree that INP will be used only where TDS TELECOM cannot provide Permanent Number Portability (PNP). Once PNP is available, the Parties agree to change from INP to PNP as a coordinated project at no charge to either Party.

#### 2. PERMANENT NUMBER PORTABILITY

- 2.1 General Terms and Conditions
  - 2.1.1 The Parties agree that the industry has established local routing number (LRN) technology as the method by which permanent number portability (PNP) will be provided in response to FCC Orders in FCC 95-116 (i.e., First Report and Order and subsequent Orders issued to the date this agreement was signed). As such, the parties agree to provide PNP via LRN to each other as required by such FCC Orders or Industry agreed upon practices.

#### 2.2 <u>Service Provided</u>

The Parties shall:

- 2.2.1.1 provide for the requesting of End Office PNP capability on a reciprocal basis through a written request process; and
- 2.2.1.2 disclose, upon request, any technical limitations that would prevent PNP implementation in a particular switching office; and
- 2.2.1.3 provide PNP services and facilities only where technically feasible, subject to the availability of facilities, and only from properly equipped central office(s).

The Parties do not offer PNP services and facilities for NXX codes 555, 976, 950.

2.3 Procedures for Requesting PNP.

If a Party desires to have PNP capability deployed in an End Office of the other Party, which is not currently capable, the requesting Party shall issue a written request which specifically requests PNP, identifies the discrete geographic area covered by the request, and provides a tentative date that the requesting Party expects to need PNP to port prospective customers.

The Party receiving a written request for PNP pursuant to Section 2.3.1 above shall respond to the requesting Party within ten (10) Business Days of receipt of the request, with a date for which PNP will be available in the requested End Office. The receiving Party will proceed to provide PNP in compliance with the procedures and timelines set forth in FCC 96-286, Paragraph 80, and FCC 97-74, Paragraphs 65-67.

The Parties acknowledge that each can determine the PNP capable End Offices of the other through the Local Exchange Routing Guide (LERG).

#### 2.4 Obligations of TDS TELECOM:

At the time of execution of this Agreement, TDS TELECOM has not deployed PNP in any of its Tennessee End Offices. Pursuant to the written request process in Section 2.3, US LEC has requested, and TDS TELECOM shall deploy PNP in the switches serving the Concord, Halls Crossroads, LaVergne and Mt. Juliet, Tennessee exchanges.

Either Party may cancel any line-based calling cards associated with telephone numbers ported from their switch.

#### 2.5 <u>Obligations of US LEC</u>:

US LEC is responsible for advising the Number Portability Administration Center (NPAC) of telephone numbers that it imports and the associated data as identified in industry forums as being required for PNP.

When US LEC requests that an NXX in an LRN capable TDS TELECOM switch become portable, US LEC shall follow the industry standard LERG procedure.

US LEC shall be certified by the Regional NPAC prior to scheduling Intercompany testing of PNP.

For PNP orders the Parties shall adhere to industry standard Local Service Request (LSR) formats and industry standard PNP due date intervals. TDS TELECOM will provide for an ASR format that integrates PNP ordering. US LEC shall adhere to reserved number standards as set by the FCC.

The Parties shall cooperate in performing activities required to port Customer telephone number(s). The primary responsibility for the coordination of such activities will be assumed by the Party acquiring the End User Customer (porting in the Customer telephone number(s)).

#### 2.6 Obligations of Both Parties

- 2.6.1 When a ported telephone number becomes vacant, e.g., the telephone number is no longer in service by the original End User, the ported telephone number will be released back to the carrier owning the switch in which the telephone number's NXX is native after appropriate time has elapsed for intercept notification.
- 2.6.2 Each Party has the right to block default routed calls from entering a network in order to protect the public switched network from overload, congestion, or failure propagation.

Industry guidelines shall be followed regarding all aspects of porting numbers from one network to another.

Intracompany testing shall be performed prior to the scheduling of intercompany testing.

Each Party will designate a single point of contact (SPOC) to schedule and perform required testing. These tests will be performed during a mutually agreed time frame and must meet the criteria set forth by the InterIndustry LNP Regional Team for porting.

- 2.6.6 Each Party shall abide by NANC and the InterIndustry LNP Regional Team provisioning and implementation process.
- 2.6.7 Each Party shall become responsible for the End User's other telecommunications related items, e.g. E911, Directory Listings, Operator Services, Line Information Database (LIDB), when they port the End User's telephone number to their switch.

The Parties will provide a 10-digit trigger on all LNP orders unless a coordinated conversion of numbers is requested on the PNP order.

#### 2.7 <u>Limitations of Service</u>

Telephone numbers can be ported only within a rate center or rate district, which ever is a smaller geographic area, as approved by the State

Commission. If geographic number portability is ordered by the FCC or the Commission during the term of this Agreement, the Parties will promptly negotiate any necessary revisions to this appendix to accommodate geographic number portability. In the event the Parties are unable to negotiate such changes within 30 days, either Party may invoke the dispute resolution procedures under this Agreement.

Telephone numbers in the following TDS TELECOM NXXs shall not be ported: (i) wireless NXXs until the FCC mandates that those NXXs be portable; and (ii) Telephone numbers assigned to TDS TELECOM Official Communications Services (OCS).

#### 2.8 <u>Service Descriptions</u>

The switch's LRN software determines if the called party is in a portable NXX. If the called party is in a portable NXX, a query is launched to the PNP database to determine whether or not the called number is ported.

When the called number with a portable NXX is ported, an LRN is returned to the switch that launched the query. Per industry standards, the LRN appears in the CPN (Called Party Number) field of the SS7 message and the called number then appears in the GAP (Generic Address Parameter) field.

When the called number with a portable NXX is not ported, the call is completed as in the pre-PNP environment.

The FCI (Forward Call Identifier) field's entry is changed from 0 to 1 by the switch triggering the query when a query is made, regardless of whether the called number is ported or not.

The N-1 carrier (N carrier is the responsible Party for terminating call to the End User) has the responsibility to determine if a query is required, to launch the query, and to route the call to the switch or network in which the telephone number resides.

Both Parties shall populate the Jurisdictional Identification Parameter (JIP) field with the first six (6) digits (NPA NXX format) of the appropriate LRN of the originating switch.

#### 2.9 <u>Pricing</u>

Other than standard Service Order charges for processing Local Service Requests (LSRs) as specified in Appendix Pricing, or a Party's applicable tariff, the Parties agree not to charge each other, or any of the other Party's End Users for the provisioning or conversion of ported telephone numbers as a means for either Party to recover the costs associated with PNP.

# 3. MASS CALLING

## 3. <u>General Terms and Conditions</u>

3.1.1 Mass calling codes, i.e., choke/HVCI NXXs, are used in a network serving arrangement in special circumstances where large numbers of incoming calls are solicited by an End User and the number of calls far exceeds the switching capacity of the terminating office, the number of lines available for terminating those calls, and/or the STP's query capacity to the PNP database. Number portability for mass calling codes shall be jointly coordinated between the Parties.

# 4. PROVISION OF PNP BY US LEC TO TDS TELECOM

4.1 US LEC shall provide PNP to TDS TELECOM under no less favorable terms and conditions as when TDS TELECOM provides such services to US LEC.

# 5. APPLICABILITY OF OTHER RATES, TERMS AND CONDITIONS

5.1 Every interconnection and service provided hereunder shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection or service.

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#### APPENDIX NUMBERING

# **INTRODUCTION**

1.1 This Appendix sets forth the terms and conditions under which TDS TELECOM and US LEC will coordinate with respect to NXX assignments.

# 2. GENERAL TERMS AND CONDITIONS

- 2.1 Nothing in this Agreement shall be construed to limit or otherwise adversely impact in any manner either Party's right to employ or to request and be assigned any North American Numbering Plan (NANP) number resources from the numbering administrator including, but not limited to, central office (NXX) codes pursuant to the Central Office Code Assignment Guidelines, or to establish, by tariff or otherwise, Exchanges and Rating Points corresponding to such NXX codes. Each Party is responsible for administering the NXX codes it is assigned.
- 2.2 At a minimum, in those Metropolitan Exchange Areas where US LEC is properly certified by the appropriate regulatory body and intends to provide local exchange service, US LEC shall obtain a separate NXX code for each TDS TELECOM rate center which is required to ensure compliance with the industry-approved Central Office Code (NXX) Assignment Guidelines (most current version) or other industry approved numbering guidelines and the FCC's Second Report & Order in CC Docket 95-116, released August 18, 1997 (Local Number Portability). This will not apply where number pooling is in effect. In areas where thousand block number pooling is in place, US LEC shall obtain a separate thousand block for each rate center. US LEC shall terminate all calls to individual codes to Customers physically located within the codes' respectively assigned rate centers. This will enable US LEC and TDS TELECOM to identify the jurisdictional nature of traffic for intercompany compensation until such time as both Parties have implemented billing and routing capabilities to determine traffic jurisdiction on a basis other than NXX codes.
- 2.3 Pursuant to Section 7.3 of the North American Numbering Council Local Number Portability Architecture and Administrative Plan report, which was adopted by the FCC, Second Report and Order, CC Docket 95-116, released August 18, 1997, portability is technically limited to rate center/rate district boundaries of the incumbent LEC due to rating and routing concerns.

- 2.4 Each Party is responsible to program and update its own switches and network systems to recognize and route traffic to the other Party at all times.
- 2.5 Each Party is responsible to input required data into the Routing Data Base Systems (RDBS) and into the Telcordia Rating Administrative Data Systems (BRADS) or other appropriate system(s) necessary to update the Local Exchange Routing Guide (LERG), unless negotiated otherwise.
- 2.6 Neither Party is responsible for notifying the other Parties' End Users of any changes in dialing arrangements, including those due to NPA exhaust.

#### 2.7 <u>NXX Migration</u>

Where either Party has activated an entire NXX for a single end user, or activated more than half of an NXX for a single end user with the remaining numbers in that NXX either reserved for future use or otherwise unused, and such End-User chooses to receive service from the other Party, the first Party shall cooperate with the second Party to have the entire NXX reassigned in the LERG (and associated industry databases, routing tables, etc.) to an End Office operated by the second Party provided that the requested rate center is the same rate center that physically serves the customer in a nonforeign exchange arrangement. Such transfer will require development of a transition process to minimize impact on the Network and on the end user(s)' service and will be subject to appropriate industry lead times (currently forty-five (45) days) for movements of NXXs from one switch to another. The Party to whom the NXX is migrated will pay NXX migration charges per NXX to the Party formerly assigned the NXX as described in the Appendix PRICING. In a Thousand-block number-pooling environment, where a provider has a large block of numbers and wants to migrate to another provider, LNP will be the migration method.

#### 2.8 <u>Test Numbers</u>

Each Party is responsible for providing to the other, valid test numbers. One number terminating to a voice announcement, Call Distribution System, or a live operator, either of which will identify the Company and one number terminating to a milliwatt tone providing answer supervisionwill be provided by each Party. Both numbers should remain in service indefinitely for regressive testing purposes.

# 3. APPLICABILITY OF OTHER RATES, TERMS AND CONDITIONS

3.1 Every interconnection and service provided hereunder shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection or service.

# **APPENDIX-PRICING**

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# **APPENDIX PRICING**

#### 1. INTRODUCTION

- 1.1 This Appendix sets forth the pricing terms and conditions for TDS TELECOM and US LEC.
- 1.2 If a rate element and/or charge for a product or service contained in, referenced to or otherwise provided by TDS TELECOM under this Agreement (including any attached or referenced Appendices) is not listed in this Appendix PRICING, such rates and charges shall be determined in accordance with Section 252(d) of the Act; provided however, if TDS TELECOM provides a product or service that is not subject to the pricing principles of the Act, such rate(s) and/or charges shall be as negotiated by TDS TELECOM and US LEC.
- 1.3 Except as otherwise agreed upon by the Parties in writing or by the publication of or concurrence in tariffs or price lists filed with the FCC or the Tennessee Regulatory Authority (TRA), TDS TELECOM shall not be required to provide US LEC a product or service under this Agreement unless and until the Parties have agreed upon a rate element or charge (whether a final rate/charge or, as agreed upon by the Parties, an interim rate/charge subject to a true-up, true-down) applicable to the requested product and/or service.
- 1.4 The pricing list is in Attachment A found in this Appendix PRICING.

# 2. **RECURRING CHARGES**

- 2.1 Unless otherwise identified in Attachment A of this Appendix PRICING, where rates are shown as monthly, a month will be defined as a 30-day calendar month. The minimum term for each monthly rated element will be one (1) month. After the initial month, billing will be on the basis of whole or fractional months used. The minimum term for non-monthly rated services, if applicable, will be specified in the rate table included in this Appendix.
- 2.2 Where rates are distance sensitive, the mileage will be calculated on the airline distance involved between the locations. To determine the rate to be billed, the Parties will first compute the mileage using the V&H coordinates method, as set forth in the National Exchange Carrier Association, Inc. Tariff FCC No 4. When the calculation results in a fraction of a mile, the fractional mileage will be rounded up to the next whole mile before determining the mileage and applying rates.

# 3. NON-RECURRING CHARGES

Where rates consist of usage sensitive charges or per occurrence charges, such per occurrence rates are classified as "non-recurring charges".

- 3.2 The Parties shall pay a service order processing/administration charge for each service order submitted to the other Party.
- 3.3 Some items, which must be individually charged (e.g., extraordinary charges, Party Changes, etc.), are billed as nonrecurring charges.

Time and Material charges (a.k.a. additional labor charges) are defined in the Pricing Attachment A.

#### 4. **BILLING**

4. For information regarding billing, non-payment, disconnects and dispute resolution, see the General Terms and Conditions of this Agreement.

## 5. APPLICABILITY OF OTHER RATES, TERMS AND CONDITIONS

Every interconnection and service provided hereunder shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection or service.

#### TDS TELECOM- US LEC Contracted Interconnection Rates Tennessee

		TDS TELEC	OM-US L	EC Tennessee
······		Monthly Recurring Non Recu		on Recurring
Local Service Non-Recurring Charges				
Local Service Order (LSR)			\$	53.36
Miscellaneous Testing and other Additional Labor- each half ho thereof	ur or fraction			
Basic Time per technician			s	23.33
Overtime per technician			ŝ	34.99
Premium Time per technician			\$	46.65
RECIPROCAL COMPENSATION				
Local Traffic Termination				
Per Terminating MOU			\$	0.005770
INTERIM NUMBER PORTABILITY				
Remote call forwarding per number	5	\$ 2.30		
WHITE PAGES				
TDS TELECOM Directory				
Per Book copy Delivered in Bulk to CLEC- Subsequent Order(s *5% discount on orders over 500	) only			<b>\$</b> 5.00*
Per Single Sided Informational Page (optional purchase)				\$100.00
Additional listing services- per listing (optional purchase)			Se	ee Applicable Tariff

# APPENDIX RECIPROCAL COMPENSATION

TDS TELECOM/US LEC Interconnection Agreement

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# APPENDIX RECIPROCAL COMPENSATION (Mutual Compensation for Transport, Termination, and Transiting)

# 1. INTRODUCTION

<sup>11</sup> This Appendix sets forth terms and conditions for Reciprocal Compensation provided by TDS TELECOM and US LEC.

# 2. TRANSMISSION AND ROUTING OF TELEPHONE EXCHANGE SERVICE TRAFFIC RELEVANT TO COMPENSATION

2.1 The Telecommunications traffic exchanged between US LEC and TDS TELECOM will be classified as Local Traffic, Internet Traffic, intraLATA Toll Traffic, or interLATA Toll Traffic. Local Traffic is defined in Section 2.5.

Reciprocal compensation applies for transport and termination of Local Traffic. When an End User originates a call which terminates to an End User physically located in the same local exchange area and served on the other Party's switch, the originating Party shall compensate the terminating Party for the transport and termination of Local Traffic in accordance with Section 4 of this Appendix.

When US LEC provides service in a LATA, the Parties' obligation for reciprocal compensation to each other shall commence on the latter of either the effective date of this Interconnection Agreement or the date that traffic first passed through the Parties networks.

The compensation arrangements set forth in this Appendix are not applicable to Exchange Access traffic or any other type of traffic found to be exempt from reciprocal compensation by the FCC or the Commission. All Exchange Access traffic and intraLATA Toll Traffic shall continue to be governed by the terms and conditions of applicable federal and state access tariffs. Optional calling plans, where applicable, will be classified as toll traffic.

"Local Traffic", for purposes of intercarrier compensation, is traffic where all calls are within the same common local and common mandatory local calling area, i.e., within the same or different TDS TELECOM Exchange(s) that participate in the same common local mandatory local calling area approved by the applicable state Commission. Local Traffic must actually originate and actually terminate to parties physically located within the same common local or common mandatory local calling area. Local Traffic does not include optional calling plans (i.e. optional rate packages that permit the end user to choose a local calling scope beyond their basic local calling area for an additional fee).

2.5.1 Notwithstanding any other provision of the Agreement, Local Traffic does not include any Internet Traffic. Subject to the provisions set forth in Section 4 of the General Terms and Conditions, the Parties' rights and

obligations with respect to any intercarrier compensation that may be due in connection with their exchange of telecommunications traffic delivered to Internet Service Providers (ISPs) ("Internet Traffic") shall be governed by the Order on Remand and Report and Order, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Intercarrier Compensation for ISP Bound Traffic*, FCC 01-131, CC Docket Nos. 96-98 and 99-68.

2.6 Reciprocal Compensation applies to Local Traffic terminated by either Party's switch.

# 3. **RESPONSIBILITIES OF THE PARTIES**

- 3.1 Each Party to this Appendix will be responsible for the accuracy and quality of its data as submitted to the respective Parties involved.
- 3.2 Where SS7 connections exist, each Party will include in the information transmitted to the other for each call being terminated on the other's network, where available, the original and true Calling Party Number (CPN) and the Originating Local Routing Number (LRN).

If one Party is passing CPN and LRN, but the other Party is not properly receiving information, the Parties will work cooperatively to correct the problem.

# 4. LOCAL TRAFFIC COMPENSATION

4. The rates, terms, conditions contained herein apply only to the termination of Local Traffic on the Parties' networks. All applicable rate elements can be found in Appendix PRICING.

Based on the assumption that the Local Traffic exchanged by the Parties will be roughly balanced (i.e., neither Party is terminating more than sixty (60) percent of the Parties' total terminated minutes for Local Traffic), the Parties shall initially terminate each other's Local Traffic on a Bill and Keep basis. "Bill and Keep" shall mean that the Party originating the traffic has no obligation to pay terminating charges to the other Party for terminating the traffic, regardless of any charges the originating Party may assess its End User(s).

4.3 Either Party may request that a traffic study be performed no more frequently than once a quarter. Should such traffic study indicate, in the aggregate, that the traffic is no longer in balance, either Party may notify the other of their intent to bill for Local Traffic termination pursuant to the rates set forth in Appendix PRICING of this Agreement and continue for the duration of the Term of this Agreement unless otherwise agreed by the Parties. A minimum of thirty (30) days written notice is required prior to the first billing of mutual compensation.

# 4.4 Local Traffic Compensation Rate

The End Office Termination rate applies to Local Traffic that is delivered by a Party for termination by the other Party.

# 5. BILLING FOR MUTUAL COMPENSATION

#### 5.1 Indirect Interconnection

Where the Parties utilize Indirect Interconnection via third party tandems for the exchange of traffic between their respective networks, each Party shall be responsible for the message recording required to produce accurate bills, or may utilize records provided by the tandem operator to invoice for traffic terminating on its network. The Parties agree to accept the billing records from the tandem operator as an accurate statement of traffic exchanged between the Parties.

To calculate intrastate toll access charges, each Party shall provide to the other, within 20 calendar days after the end of each quarter, a PLU (Percent Local Usage) factor. Each company should calculate the PLU factor on a state basis using their originating IntraLATA minutes of use. The Parties shall provide a separate PLU for each TDS TELECOM operating company covered under this Agreement. The percentage of originating Local Traffic plus Internet Traffic to total intrastate (Local Traffic, Internet Traffic, and intraLATA toll) originating traffic would represent the PLU factor.

The originating Party shall be responsible for payment of any transit charges (including tandem switching) assessed by the third party LEC for use of the third party LEC's tandem.

#### 5.2 <u>Direct Interconnection</u>

Where the Parties utilize Direct Interconnection for the exchange of traffic between their respective networks, each Party will calculate terminating interconnection minutes of use based on standard Automatic Message Accounting (AMA) recordings made within each Party's network. These recordings are the basis for each Party to generate bills to the other Party. For purposes of reciprocal compensation only, measurement of minutes of use over Local Interconnection Trunk Groups shall be in actual conversation seconds. The total conversation seconds over each individual Local Interconnection Trunk Group will be totaled for the entire monthly bill and then rounded to the next whole minute.

- 5.2.2 Not withstanding the foregoing, where the terminating company has message recording technology that identifies the traffic terminated, such information, in lieu of the PLU factor, shall at the Parties option be utilized to determine the appropriate local usage compensation to be paid. Where SS7 connections exist between TDS TELECOM and US LEC, if the percentage of calls passed without CPN and LRN is less than one hundred percent (100%), all calls exchanged without CPN information and LRN will be billed as either Local Traffic or intraLATA Toll Traffic in direct proportion to the minutes of use (MOU) of calls exchanged with CPN information.
- 5.3 Audits of usage associated with Reciprocal Compensation shall be performed as specified in § 38 of the General Terms and Conditions of this Agreement.
- 5.4 The Parties shall be governed by applicable state and federal rules, practices, and procedures regarding the provision and recording of billing records. Neither Party shall bill for records older than one hundred eighty (180) days.

# 6. APPLICABILITY OF OTHER RATES TERMS AND CONDITIONS

6.1 Every interconnection and service provided hereunder shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection or service.

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# APPENDIX WP (WHITE PAGES DIRECTORY)

## 1. INTRODUCTION

- 1.1 This Appendix sets forth terms and conditions that shall apply to US LEC for End User Listings in White Page directories provided by TDS TELECOM.
- 1.2 The prices at which TDS TELECOM agrees to provide US LEC with White Page services are contained in the applicable Appendix PRICING.

## 2. SERVICE PROVIDED

- 2.1 TDS TELECOM publishes White Pages (WP) directories for geographic areas in which US LEC also provides local exchange telephone service, and US LEC wishes to include alphabetical listings information for its End Users in the appropriate TDS TELECOM White Pages directories.
- 2.2 US LEC also desires distribution to its End Users of the WP directories that include listings of US LEC's End Users.
- 2.3 Subject to TDS TELECOM's practices, as well as the rules and regulations applicable to the provision of WP directories, TDS TELECOM will include in appropriate WP directories the primary alphabetical listings of all US LEC End Users located within the local directory scope. TDS TELECOM will also include, where applicable for US LEC business End Users, one alphabetical, non-bold yellow page listing on the same basis as provided for TDS TELECOM business End Users. The rules, regulations and TDS TELECOM's practices are subject to change from time to time.
- 2.4 Prior to the issuance of a particular directory, and at such time or times as may be mutually agreed, US LEC shall furnish to TDS TELECOM, in a form acceptable to both Parties, subscriber listing information pertaining to US LEC End Users located within the local directory scope, along with such additional information as TDS TELECOM may require to prepare and print the alphabetical listings of said directory. US LEC may provide US LEC's subscriber listing information to TDS TELECOM for inclusion in the WP directory via either a mechanical or manual feed of the listing information to TDS TELECOM's directory listing database up to ten (10) days prior to the business office close date.
- 2.5 US LEC's End User listings will be alphabetically interfiled (interspersed) with TDS TELECOM's subscriber listings of the WP directory. After the business office close date for a particular directory, TDS TELECOM shall provide US LEC the directory publisher's inter-mingled proof of the subscriber listings as such listings are to appear in the directory. The verification list shall also include

Directory Delivery Address information for each US LEC End User. US LEC shall review this verification list upon receipt and shall submit to TDS TELECOM any necessary additions, deletions or modifications within five (5) Business Days.

- 2.6 Each US LEC subscriber will receive one copy per primary End User listing of TDS TELECOM's White Pages directory in the same manner and at the same time that they are delivered to TDS TELECOM's subscribers during the annual delivery of newly published directories. TDS TELECOM has no obligation to provide any additional White Page directories above the directories provided to US LEC or US LEC customers after each annual distribution of newly published White Pages. For White Page directories and/or White Page directories that are co-bound with Yellow Pages, US LEC may provide to TDS TELECOM written specifications of the total number of directories that it will require, at least forty (40) days prior to the business office directories included in the US LEC's order in bulk to an address specified by US LEC.
- 2.7 TDS TELECOM will provide US LEC with 1/8<sup>th</sup> page in each directory (where US LEC has or plans to have local telephone exchange customers) for US LEC to include US LEC specific-information (i.e., business office, residence office, repair bureau, etc.) in the WP directory on an "index-type" informational page. No advertising will be permitted on such informational page. This page will also include specific information pertaining to other CLECs. At its option, US LEC shall provide TDS TELECOM with its logo and information in the form of a camera-ready copy, sized at 1/8<sup>th</sup> of a page. The content of US LEC's camera-ready copy shall be subject to TDS TELECOM's approval.
- 2.8 At its request, US LEC may purchase "Informational Page(s)" in the informational section of the WP directory covering a geographic area where US LEC provides local telecommunications exchange service. Such page(s) shall be no different in style, size, color and format than TDS TELECOM's "Informational Pages". Forty (40) calendar days prior to the business office directory close date, US LEC shall provide to TDS TELECOM the "Informational Page" in the form of camera-ready copy.

# 3. USE OF SUBSCRIBER LISTING INFORMATION

3. US LEC authorizes TDS TELECOM to include and use the subscriber listing information provided to TDS TELECOM pursuant to this Appendix in TDS TELECOM's appropriate printed WP directory. Included in this authorization is the exchange of extended area service listings TDS TELECOM provides for Independent Company directory publications and release of US LEC listings to requesting competing carriers as required by Section 251(b)(3) and any applicable state regulations and orders. Also included in this authorization is TDS TELECOM's use of US LEC's subscriber listing information in TDS TELECOM's current and future directory.

# 4. **PRICING**

- 4. The rates for the services described herein are identified in Appendix PRICING. US LEC will receive, at no charge, one primary listing for each US LEC End User in TDS TELECOM's WP directory; and, at the time of annual distribution of newly published directories, one copy of the directory provided to US LEC's End Users, and the remaining copies as specified in Section 2.6 above in bulk to the US LEC location. TDS TELECOM has no obligation to warehouse WP directories for US LEC or provide WP directories to US LEC's End Users subsequent to the annual distribution of newly published directories.
- 4.2 TDS TELECOM has no obligation to provide any additional WP directories above the number of directories forecast by US LEC per Section 2.6 above. While TDS TELECOM has no obligation to provide WP directories to US LEC or US LEC's End Users after the annual distribution of newly published directories, TDS TELECOM will in good faith attempt to accommodate US LEC requests for "Subsequent" directory orders (orders placed after the initial order/forecast is provided see Section 2.6 above). Orders for directories above the forecast number(s) will be filled subject to availability. In such event, TDS TELECOM will provide the directories in bulk to US LEC and will assess a per book charge.
- 4.3 Where a US LEC End User requires additional listings to appear in the WP directory, TDS TELECOM will assess US LEC a charge for such listings at existing TDS TELECOM tariff rates.

### 5. ASSIGNMENT

5.1 Except as stated in Section 3 herein, TDS TELECOM shall not sublicense, assign, sell or transfer the subscriber listing information provided hereunder, nor shall TDS TELECOM authorize any other company or any person to use the subscriber listing information for any other purpose. TDS TELECOM shall take appropriate measures to guard against any unauthorized use of the listings provided to it hereunder (at least the same measures TDS TELECOM takes to protect its own listings from unauthorized use), whether by TDS TELECOM, its agents, employees or others.

# 6. LIABILITY

- 6. US LEC hereby releases TDS TELECOM from any and all liability for damages due to errors or omissions in US LEC's subscriber listing information as provided to TDS TELECOM by US LEC. TDS TELECOM hereby releases US LEC from any and all liability for damages due to any error or omission in US LEC's subscriber listing information as it appears in the WP directory that is solely attributable to TDS TELECOM.
- 6.2 In no event shall either Party be liable for any lost profits or other consequential, special, incidental, exemplary, indirect or punitive damages, even if it has been advised of the possibility of such damages, for claim by a third party.
- 6.3 US LEC shall indemnify, protect, save harmless and defend TDS TELECOM (or TDS TELECOM's officers, employees, agents, assigns and representatives) from and against any and all losses, liability, damages and expense arising out of any demand, claim, suit or judgment by a third party in any way related to any US LEC error or omission in US LEC's subscriber listing information, including any error or omission related to non-published or non-listed subscriber listing information. TDS TELECOM shall indemnify, protect, save harmless and defend US LEC (or US LEC's officers, employees, agents, assigns and representatives) from and against any and all losses, liability, damages and expense arising out of any demand, claim, suit, or judgement by a third party in any way related to any TDS TELECOM error or omission in US LEC's subscriber listing information, including any error or omission related to non-published or non-listed subscriber listing information.

The indemnified party may, at its election, control the defense and settlement of any claim against it in respect of which indemnity may be sought on account of the indemnity provisions contained in this Appendix, such defense to be at the cost and expense of the indemnifying party, provided such costs and expenses are customary and reasonable.

6.4 This Appendix shall not establish, be interpreted as establishing, or be used by either Party to establish or to represent their relationship as any form of agency, partnership or joint venture. Neither Party shall have any authority to bind the other nor to act as an agent for the other unless written authority, separate from this Appendix, is provided. Nothing in the Appendix shall be construed as providing for the sharing of profits or losses arising out of the efforts of either or both of the Parties. Nothing herein shall be construed as making either Party responsible or liable for the obligations and undertakings of the other Party.

# 7. BREACH OF CONTRACT

7. If either Party is found to have materially breached this Appendix and the breaching Party fails to cure the breach within ten (10) calendar days after receipt of notice from the other Party, the non-breaching Party may terminate the Appendix by providing written notice to the breaching Party, whereupon this Appendix shall be null and void with respect to any issue of TDS TELECOM's WP directory published sixty (60) or more calendar days after the date of receipt of such written notice.

# 8. TERM

- 8.1 This Appendix shall continue in force for two (2) years or until terminated as specified in General Terms and Conditions Section 5. Upon termination, TDS TELECOM shall cease using, for any purpose whatsoever, the subscriber listing information provided hereunder by US LEC, and shall promptly return such subscriber listing information to the US LEC.
- 8.2 Upon termination of the interconnection Agreement, this Appendix will be null and void with respect to any issue of directories published thereafter, except that the indemnification provided by Section 6 herein shall continue with respect to any directory published within one hundred and twenty (120) calendar days of termination.

# 9. APPLICABILITY OF OTHER RATES, TERMS AND CONDITIONS

9 Every interconnection and service provided hereunder shall be subject to all rates, terms and conditions contained in this Agreement which are legitimately related to such interconnection or service.