

APPENDIX ITR

(Interconnection Trunking Requirements)

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APPENDIX ITR (INTERCONNECTION TRUNKING REQUIREMENTS)

1. INTRODUCTION

- 1.1 This Appendix provides descriptions of the trunking requirements between WSP and AT&T-13STATE. The paragraphs herein describe the required and optional Interconnection Trunk Groups for local/intraLATA, IXC trunks, mass calling, 911/E911, Operator Services and Directory Assistance traffic.
- 1.2 AT&T-13STATE and WSP exchange traffic over their networks in connection with WSP's Authorized Services in accordance with the provisions of this Agreement. WSP shall deliver all Interconnection traffic destined to terminate on AT&T-13STATE's network through Interconnection Trunks obtained pursuant to this Agreement. This Agreement is not intended to allow for the exchange of Paging Traffic between the Parties' respective networks. If the Parties have Paging Traffic to exchange, a separate interconnection agreement must be negotiated to address that traffic.

2. TRUNKING DESCRIPTIONS

- 2.1 Type 1: Provides a one-way Trunk Side connection between an AT&T-13STATE end office and WSP's network. Type 1 Trunks will be used solely for the transmission and routing of Ancillary Services traffic.
- 2.2 Type 2A: Provides a Trunk Side connection between an AT&T-13STATE Tandem Switch and WSP's network. WSP to AT&T-13STATE traffic on such an Interconnection Trunk Group must be destined for an NPA-NXX residing in an AT&T-13STATE End Office Switch that homes on that AT&T-13STATE Tandem Switch. Type 2A Trunks can be one-way or two-way except in AT&T CONNECTICUT where Trunk groups must be ordered and provisioned as one-way.
- 2.3 Type 2A Local/Equal Access Combined Trunk Group: Provides a Trunk Side connection between WSP's network and an AT&T-7STATE Access Tandem. Local/Equal Access Trunk Groups carry interexchange access traffic and local traffic. This Trunk Group requires an interface utilizing equal access signaling.
- 2.4 Type 2A Equal Access Trunk Group: Provides a Trunk Side connection between WSP's network and an AT&T-13STATE Access Tandem. Equal Access Trunk Groups carry interexchange access traffic. This Trunk Group requires an interface utilizing equal access signaling.
 - 2.4.1 In AT&T MIDWEST REGION 5-STATE and AT&T SOUTHWEST REGION 5-STATE, a separate Type 2A Equal Access Trunk Group is required when AT&T MIDWEST REGION 5-STATE and AT&T SOUTHWEST REGION 5-STATE is not able to record WSP-originated traffic to an IXC. WSP will also provide to AT&T MIDWEST REGION 5-STATE and AT&T SOUTHWEST REGION 5-STATE, using industry standard data record formats, recordings of all calls (both Completed Calls and attempts) to IXCs from WSP's network using Trunks employing a Type 2A connection.
- 2.5 Type 2B: Provides a Trunk Side connection between WSP's network and AT&T-12STATE End Office Switch providing the capability to access only subscribers served by that End Office Switch. Type 2B is a one-way mobile- to-land or land-to-mobile trunk group (and two-way, where available) and is available where facilities and equipment permit. Type 2B is not offered at DMS 10, Ericsson and 1AESS switches.
- 2.6 Type 2C: Provides a one-way terminating Trunk Side connection between WSP's MSC and AT&T-13STATE's 911 Tandem equipped to provide access to E911 services.
- 2.7 Type 2D: Provides a direct voice-grade transmission path to a LEC Operator Services System (OSS) switch.
 - 2.7.1 Directory Assistance and/or Operator Services traffic may be delivered through a dedicated Trunk Group to an AT&T-13STATE Operator Services switch.

3. TRUNK REQUIREMENTS

- 3.1 Trunk Groups dedicated to the exchange of Authorized Services will be established between the Parties switches. WSP to **AT&T-13STATE** traffic, on such Trunk Groups, that is exchanged pursuant to this Agreement must be restricted to NPA-NXXs residing in **AT&T-13STATE** End Office Switches.
- 3.2 Except as described below, only one trunk group shall be provisioned between any Telco switch and the Carrier switch.
- 3.2.1 Multiple trunk groups may be provisioned between a Telco switch and the Carrier switch, at the sole discretion of the Telco, and only with the following requirements. For Unique routing the Carrier shall provide all required routing information including a separate and distinct CLLI code for each trunk group, and specific NPA/NXX routing directions. Duplicate trunk group serving the same function is not acceptable.
- 3.3 WSP shall trunk to all **AT&T-13STATE** Tandems in each LATA from each MSC where WSP desires to exchange local and intraLATA traffic or, in the event WSP has no MSC in the LATA, from WSP's designated POI(s) within the LATA.
- 3.4 **AT&T-13STATE** provided Type 1 interfaces will be as described above. Any non-Trunk Side Message Treatment (TSMT) form of Type 1 interface will be eliminated within ninety (90) Days of the Effective Date.
- 3.5 Direct End Office Trunking
- 3.5.1 The Parties shall establish a one-way mobile-to-land or land-to-mobile DEOT when actual or projected total end office traffic requires twenty-four (24) or more Trunks or when **AT&T-13STATE**'s End Office Switch is not served by an **AT&T-13STATE** Tandem Switch in the local exchange area. If the DEOT is designed to overflow, the traffic will be alternate routed to the appropriate **AT&T-13STATE** Tandem. DEOT's established as direct finals will not overflow from either direction to any alternate route.
- 3.5.2 The Party's may establish or will migrate from one-way to two-way DEOT's when the two-way service becomes available in each **AT&T-13STATE** location.
- 3.5.3 Should WSP fail to comply with this Section 3.4, **AT&T-13STATE** reserves the right, at its sole discretion, to restrict provisioning of additional trunks at the Tandem.
- 3.6 High Volume Call In (HVCI) / Mass Calling (Choke) Trunk Group: **AT&T-12STATE**
- 3.6.1 A dedicated Trunk Group shall be required to the designated Public Response HVCI/Mass Calling Network Access Tandem in each serving area. This Trunk Group shall be one-way outgoing only and shall utilize MF signaling. As the HVCI/Mass Calling Trunk Group is designed to block all excessive attempts toward HVCI/Mass Calling NXXs, it is necessarily exempt from the one percent blocking standard described elsewhere for other final local Interconnection Trunk Groups. WSP will have administrative control for the purpose of issuing ASRs on this one-way Trunk Group. The Parties will not exchange live traffic until successful testing is completed by both Parties.

3.6.1.1 This Trunk Group shall be sized as follows:

<i>Number of End Users</i>	<i>Number of Mass Calling Trunks</i>
<i>0 – 10,000</i>	<i>2</i>
<i>10,001 – 20,000</i>	<i>3</i>
<i>20,001 – 30,000</i>	<i>4</i>
<i>30,001 – 40,000</i>	<i>5</i>
<i>40,001 – 50,000</i>	<i>6</i>
<i>50,001 – 60,000</i>	<i>7</i>
<i>60,001 – 75,000</i>	<i>8</i>
<i>75,000 +</i>	<i>9 maximum</i>

3.6.2 If WSP should acquire a HVCI/Mass Calling End User (e.g., a radio station), WSP shall notify AT&T-12STATE at least sixty (60) Days in advance of the need to establish a one-way outgoing SS7 or MF Trunk Group from the AT&T-12STATE HVCI/Mass Calling Serving Office to the WSP End User's serving office. WSP will have administrative control for the purpose of issuing ASRs on this one-way Trunk Group.

3.6.2.1 If WSP finds it necessary to issue a new choke telephone number to a new or existing HVCI/Mass Calling End User, the WSP may request a meeting to coordinate with AT&T-12STATE the assignment of HVCI/Mass Calling telephone number from the existing choke NXX. In the event that the WSP establishes a new choke NXX, WSP must notify AT&T-12STATE a minimum of ninety (90) Days prior to deployment of the new HVCI/Mass Calling NXX. AT&T-12STATE will perform the necessary translations in its end offices and Tandem(s) and issue ASR's to establish a one-way outgoing SS7 or MF trunk group from the AT&T-12STATE Public Response HVCI/Mass Calling Network Access Tandem to the WSP's choke serving office.

3.6.3 In AT&T CONNECTICUT, where HVCI/Mass Calling NXXs have not been established, the Parties agree to utilize "call gapping" as the method to control high volumes of calls, where technically feasible in the originating switch, to specific high volume End Users or in situations such as those described in Section 28, "Network Maintenance and Management" of the General Terms and Conditions.

3.7 911/E911

3.7.1 See Appendix Wireless Emergency Number Services Access (E911) for trunk requirements.

4. TRUNK FORECASTING

- 4.1 WSP agrees to provide Trunk forecasts to assist in the planning and provisioning of Interconnection Trunk Groups and Facilities.
- 4.2 WSP will provide a Trunk forecast prior to initial implementation, and subsequent forecasts will be provided to AT&T-13STATE upon request, as often as twice a year. The forecast shall include yearly forecasted Trunk quantities (which include measurements that reflect actual Tandem local Interconnection and InterLATA Trunks, end office local Interconnection Trunks, and Tandem subtending local Interconnection end office equivalent Trunk requirements) for a minimum of three (current plus 2 future) years.
- 4.3 Revised Trunk forecasts will be provided by WSP whenever there are significant increases or decreases in trunking demand than reflected in previously submitted forecasts.
- 4.4 Trunk forecasts shall include yearly forecasted Trunk quantities by Tandem and subtending end offices. Identification of each Trunk will be by the "from" and "to" Common Language Location Identifiers (CLLI), as described in Telcordia Technologies documents BR 795-100-100 and BR 795-400-100.
- 4.5 The Parties agree to meet to review each submitted forecast.

5. TRUNK PROVISIONING

- 5.1 WSP will be responsible for ordering all Interconnection Trunk Groups.
- 5.2 Orders from WSP to AT&T-13STATE to establish, add, change, or disconnect Trunks shall be submitted using AT&T-13STATE's applicable ordering system. Two-way Trunk Groups may only be used for the delivery of traffic in both directions.
- 5.3 Orders that comprise a major project that directly impacts the other Party 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 AT&T-13STATE and WSP work groups, including but not limited to the initial establishment of Trunk Groups in an area, designated NPA-NXX relocations, re-homes, facility grooming or major network rearrangements.

- 5.4 Due dates for the installation of Trunk Groups covered by this Appendix shall be based on each of the AT&T-13STATE's intrastate switched access intervals.
- 5.5 Trunk Servicing
- 5.5.1 The Parties will jointly manage the capacity of Trunk Groups. A Trunk Group Service Request (TGSR) will be sent by AT&T-13STATE to notify the WSP to establish or make modifications to existing Trunk Groups. WSP will issue an ASR to AT&T-13STATE's Wireless Access Service Center, to begin the provisioning process:
- 5.5.1.1 Within ten (10) Business Days after receipt of the TGSR or other notification; or
- 5.5.1.2 At any time as a result of WSP's own capacity management assessment.
- 5.5.2 Upon review of the TGSR, if a Party does not agree with the resizing, the Parties will schedule a joint planning discussion to take place and conclude within twenty (20) Business Days of WSP's receipt of the TGSR. At the joint planning discussion, the Parties will resolve and mutually agree to the disposition of the TGSR.
- 5.5.3 If AT&T-13STATE does not receive an ASR, or if the WSP does not respond to the TGSR by scheduling a joint discussion within the twenty (20) Business Day period, AT&T-13STATE will attempt to contact WSP to schedule a joint planning discussion. If WSP will not agree to meet within an additional five (5) Business Days and present adequate reason for keeping Trunks operational, AT&T-13STATE will issue an ASR to resize the Interconnection Trunks and Facilities.
- 5.6 Trunk servicing responsibilities for Operator Services trunks used for stand-alone Operator Service or Directory Assistance are the sole responsibility of the WSP.
- 5.7 Utilization
- 5.7.1 Underutilization of Trunks exists when provisioned capacity is greater than the current need. This over provisioning is an inefficient deployment and use of network resources and results in unnecessary costs. Those situations where more capacity exists than actual usage requires will be handled in the following manner:
- 5.7.1.1 If a Trunk group is under seventy-five percent (75%) of busy hour centum call seconds (ccs) capacity on a monthly average basis for each month of any consecutive three (3) month-period, either Party may request to have the Trunk Group resized, the Trunk Group shall not be left with more than twenty-five percent (25%) excess capacity. Neither Party will unreasonably refuse a request to resize the Trunk Group. In all cases, grade of service objectives shall be maintained.
- 5.7.1.2 If an alternate final Trunk Group is at seventy-five percent (75%) utilization or greater, a TGSR may be sent to the WSP for the final and all subtending high usage Trunk Groups that are contributing a DS1 or greater amount of overflow to the final route.
- 5.8 Design Blocking Criteria
- 5.8.1 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 (20) 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) for all final Trunk Groups.

TABLE 1

<u>Trunk Group Type</u>	<u>Design Blocking Objective</u>
Type 2A	1%
Type 2A Equal Access (IXC)	0.5%
Type 2B (Final)	2%
Type 2C (911)	1%

Type 2D (Operator Services (DA/DACC))	1%
Type 1 (Operator Services (0+, 0-))	1%

5.8.2 When Trunks exceed measured blocking thresholds on an average time consistent busy hour for a twenty (20) Business Day study period, the Parties shall cooperate to increase the Trunks to the above blocking criteria in a timely manner. The Parties agree that twenty (20) Business Days is the study period duration objective.

6. ROUTING & RATING

- 6.1 Each NPA-NXX must have a single Rating Point and that Rating Point must be associated with a AT&T-13STATE End Office Switch or other end office switches sub-tending the AT&T-13STATE Tandem Switch where a Type 2A Trunk Group is located or the End Office Switch where a Type 2B or Type 1 Trunk Group is located; provided however, that the Rating Point may be designated anywhere in the LATA when the Commission so rules in a proceeding binding AT&T-13STATE. The Rating Point does not have to be the same as the Routing Point.
- 6.2 All terminating traffic delivered by WSP to a Tandem Switch destined for publicly dialable NPA-NXXs that do not home on that Tandem Switch is misrouted. AT&T-13STATE shall provide notice to WSP pursuant to the Notices provisions of this Agreement that such misrouting has occurred. In the notice, WSP shall be given thirty (30) Days to cure such misrouting or such traffic may be blocked.
- 6.3 The Parties shall deliver all traffic destined for the other Party's network in accordance with the serving arrangements defined in the LERG.
- 6.4 For Type 2 Trunk Groups (*i.e.*, Type 2A and Type 2B), WSP will obtain its own NXX codes from the administrator and will be responsible for: (a) LERG administration, including updates, and (b) all Code opening information necessary for routing traffic on these Trunk Groups.
- 6.5 AT&T-13STATE will not route traffic to WSP via a Third Party tandem. WSP shall not route traffic to AT&T-13STATE via a Third Party tandem.
- 6.6 If either Party originates Section 251(b)(5) Calls traffic destined for termination to the other Party, but delivers that traffic to the other Party using the Facilities of a Third Party Telecommunications Carrier, the terminating Party shall be entitled to charge transport and termination rates as set forth in Appendix-Pricing (Wireless) to the originating Party. Any charges imposed by the Third Party Telecommunications Carrier are the responsibility of the originating Party. Notwithstanding any other provision in this Agreement, neither Party is responsible for payment of such transport and termination rates for traffic destined to the other Party when the calling party is the end user of an IXC and not the End User of a Party for the call, or when an IXC delivers traffic directly to the network of the terminating Party and such IXC is subject to terminating access charges imposed by the terminating Party.
- 6.7 WSP shall not route over the Interconnection Trunks provided pursuant to this Agreement terminating traffic it receives from or through an IXC that is destined for AT&T-13STATE's End Office Switches.
- 6.8 WSP shall not deliver traffic to AT&T-13STATE under this Agreement from a non-CMRS Telecommunications Carrier.
- 6.9 All traffic received by AT&T-13STATE at an End Office Switch from the WSP must terminate to that end office. End Offices Switches do not perform Tandem-switching functions.

7. TRUNK DATA EXCHANGE

- 7.1 A Trunk Group utilization report (TIKI) is available upon request. The report is provided in MS-Excel format.

8. TRANSMISSION AND ROUTING OF AND COMPENSATION FOR EXCHANGE ACCESS SERVICE PURSUANT TO SECTION 251(c)(2)

- 8.1 This Section 8 provides the terms and conditions for the exchange of traffic between Carrier's End Users and AT&T-13STATE's End Users for the transmission and routing of and compensation for switched access traffic.

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8.2 IXC Traffic

8.2.1 All traffic between Carrier and the AT&T-13STATE Access Tandem or combined local/Access Tandem destined to be routed to, or that has been routed from, an interexchange carrier ("IXC") connected with such AT&T-13STATE Access Tandem or combined local/Access Tandem shall be transported over an Equal Access Trunk Group. This arrangement requires a separate Trunk Group employing a Type 2 interface when AT&T-13STATE is not able to record WSP-originated traffic to an IXC. WSP will also provide to AT&T-13STATE, using industry standard data record formats, recordings of all calls (both completed calls and attempts) to IXCs from WSP's network using Trunks employing a Type 2A interface. This Equal Access Trunk Group will be established for the transmission and routing of all traffic between Carrier's End Users and IXCs via an AT&T-13STATE Access Tandem or combined local/Access Tandem. Carrier is solely financially responsible for the facilities, termination, muxing, trunk ports and any other equipment used to provide such Equal Access Trunk Groups.

8.3 Traffic Subject to Access Charges

8.3.1 Terminating Switched Access Traffic

8.3.1.1 All Terminating Switched Access Traffic is subject to the rates, terms and conditions set forth in AT&T-13STATE's Federal and/or State Access Service tariffs and payable to AT&T-13STATE. Terminating Switched Access Traffic must be routed over Switched Access trunks and facilities purchased from AT&T-13STATE's Federal and/or State Access Service tariffs.

8.3.1.2 Terminating Switched Access traffic shall not be routed at any time over Local Interconnection or Equal Access Interconnection trunks. Notwithstanding any other provision of this Agreement, for all traffic sent over Local Interconnection or Equal Access trunks determined by the Telco to be terminating switched access, based on sample data from AT&T-13STATE network studies, AT&T-13STATE is authorized to charge, and Carrier will pay, the Terminating IntraLATA InterMTA traffic rate stated in Appendix Pricing – Wireless for such traffic retroactively to the Effective Date of this Agreement (however, the Parties do not waive any rights with regard to exchange of traffic prior to the Effective Date).

8.3.2 Terminating IntraLATA InterMTA Traffic

8.3.2.1 This traffic is routed over the Local Interconnection trunks within the LATA.

8.3.2.2 For the purpose of compensation between AT&T-13STATE and Carrier under this Agreement, Terminating IntraLATA InterMTA Traffic is subject to the rate stated in Appendix Pricing – Wireless. AT&T-13STATE shall charge and Carrier shall pay the rate stated in Appendix Pricing – Wireless for all Terminating IntraLATA InterMTA Traffic terminated to AT&T-13STATE End Users.

If such traffic cannot be measured on a per MOU basis, a Terminating IntraLATA InterMTA Traffic percentage will be applied.

The percentage shall be applied to the total minutes terminated to AT&T-13STATE End Users over Carrier's Local Interconnection trunks. As of the Effective Date of this Agreement, the percentage is 6%. The Terminating IntraLATA InterMTA percentage shall remain in effect for the initial term of the Agreement. A new calculation of the percentage of Terminating IntraLATA InterMTA Traffic shall occur no more frequently than once every twenty-four (24) months.

8.3.3 Originating Landline to CMRS Switched Access Traffic

8.3.3.1 This traffic is routed over the Local Interconnection trunks.

8.3.3.2 For the purpose of compensation between AT&T-13STATE and Carrier under this Section, Originating Landline to CMRS Switched Access Traffic is subject to the Originating Landline to CMRS Switched Access Traffic rates stated in Appendix Pricing – Wireless. AT&T-

13STATE is authorized to charge and Carrier shall pay the rates stated in Appendix Pricing – Wireless on a per MOU basis for all Originating Landline to CMRS Switched Access Traffic from AT&T-13STATE End User. Carrier shall not charge and AT&T-13STATE shall not pay reciprocal compensation for Originating Landline to CMRS Switched Access Traffic.

- 8.3.3.3 An Originating Landline to CMRS Switched Access traffic percentage will be developed from the Parties' records based on the V & H coordinates of the Cell Site to which the Carrier's End User's mobile unit is connected at the beginning of the call. These records will be obtained from the Carrier's databases. The percentage will be based on the following formula:

Telco originated MOU delivered by Telco to Carrier's network that terminate InterMTA divided by all Telco originated MOU delivered by AT&T-13STATE to Carrier's network.

Within thirty (30) Days of the execution of this Agreement, the Parties may retain a mutually acceptable Third Party who shall be allowed to conduct an audit of the Parties' records (to obtain and verify the data necessary for this formula) to be completed within sixty- (60) Days of execution of this Agreement. The Parties shall share the costs of the Third Party audit equally. The Originating Landline to CMRS Switched Access percentage shall remain in effect for the initial term of the Agreement. A new audit to determine the percentage of Originating Landline to CMRS Switched Access traffic shall occur no more frequently than once every twenty-four (24) months. As of the Effective Date of this Agreement, and until such time as the percentage is developed, an interim percentage of 6% will be used.

The percentage shall be applied to the total minutes originated by AT&T-13STATE's End Users delivered to Carrier's network over Carrier's Local Interconnection trunks.

- 8.4 Both Parties agree to abide by the resolution for OBF Issue 2308- Recording and Signaling Changes Required to Support Billing.