

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 the applicable SBC Communications Inc. (SBC) owned Incumbent Local Exchange Carrier (ILEC) and LEVEL 3.
- 1.2 This Appendix provides descriptions of the trunking requirements between LEVEL 3 and SBC-13STATE. All references to incoming and outgoing trunk groups are from the perspective of LEVEL 3. The paragraphs below describe the required and optional trunk groups for the exchange of Section 251(b)(5) Traffic, ISP Bound Traffic, IntraLATA toll, InterLATA “meet point”, mass calling, E911, Operator Services and Directory Assistance traffic.
- 1.3 Local Interconnection Trunk Groups may only be used to transport traffic between the parties End Users.

2. RESERVED FOR FUTURE USE.

3. ONE-WAY AND TWO-WAY TRUNK GROUPS

- 3.1 LEVEL 3 shall issue Access Service Requests (ASR) for two-way trunk groups. LEVEL 3 shall issue ASR's for one-way trunk groups, originating at the LEVEL 3 switch. SBC-13STATE shall issue ASRs for one-way trunk groups originating at the SBC-13STATE End Office Switch or Tandem Switch. Exceptions to this are noted below:
 - 3.1.1 Reserved for future use.
 - 3.1.2 LEVEL 3 shall issue ASR's for one-way Busy Line Verification/Emergency Interrupt trunk group.
 - 3.1.3 LEVEL 3 shall issue ASR's for one-way High Volume Call In trunk group as described in section 5.7.
- 3.2 Trunk groups for ancillary services (e.g. OS/DA, BLVI, mass calling, and 911) and Meet Point Trunk Groups can be established between a LEVEL 3 switch and an SBC-13STATE Tandem as further provided in this Appendix ITR.
- 3.3 Two-way Local Interconnection Trunk Group(s) for local/ IntraLATA shall be established between a LEVEL 3 switch or LEVEL 3 routing point representing a switch location and an SBC-12STATE Tandem or End Office switch for the exchange of traffic between each Party's End Users only.
 - 3.3.1 These trunk groups will utilize Signaling System 7 (SS7) or multi-frequency (MF) signaling protocol, with SS7 signaling preferred whenever possible. For administrative consistency LEVEL 3 will have control for the purpose of issuing Access Service Requests (ASRs) on two-way groups. SBC-13STATE will use the Trunk Group Service Request (TGSR), as described in

section 8.0 of this Appendix, to request changes in trunking. Both Parties reserve the right to issue ASRs, if so required, in the normal course of business.

- 3.4 The Parties agree that two-way trunking shall be established when possible and appropriate for a given trunk group. However, in SBC-CONNECTICUT, one-way trunking is required to accommodate billing limitations.
- 3.5 The Parties agree to exchange traffic data on two-way trunks and to implement such an exchange within three (3) months of the date that two-way trunking is established and 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 as described in Section 9.
- 3.6 The Parties recognize that embedded one-way trunks may exist via end-point meet Interconnection architecture. The Parties may agree to negotiate a transition plan to migrate embedded one-way trunks to two-way trunks via any Interconnection method as described in Appendix NIM. The Parties will coordinate any such migration, trunk group prioritization, and implementation schedule. SBC-13STATE agrees to develop a cutover plan and project manage the cutovers with LEVEL 3 participation and agreement.

4. TANDEM TRUNKING AND DIRECT END OFFICE TRUNKING

- 4.1 The Parties shall establish POIs according to the requirements of NIM Section 2. SBC-13STATE deploys in its network Local Only Tandem Switches, Local/IntraLATA Tandem Switches (SBC SOUTHWEST REGION 5-STATE only), Access Tandem Switches and Local/Access Tandem Switches. In addition SBC-13STATE deploys Tandems that switch ancillary traffic such as 911 (911 Tandem), Operator Services/ Directory Assistance (OS/DA Tandem), and mass calling (choke Tandem). Traffic on Tandem trunks does not terminate at the Tandem but is switched to other trunks that terminate the traffic in End Offices and ultimately to End Users.
- 4.2 When Tandem trunks are deployed, LEVEL 3 shall connect to all tandems in the LATA in SBC CONNECTICUT, SBC CALIFORNIA, SBC NEVADA and SBC MIDWEST REGION 5-STATE and to all Tandems in the local exchange area in SBC SOUTHWEST REGION 5-STATE where Level 3 Offers Service within the area served by that tandem. If no Local Only Tandem Switch, Local/ IntraLATA Tandem Switch or Local/ Access Tandem Switch exists in the local exchange area in SBC SOUTHWEST REGION 5-STATE, LEVEL 3 shall trunk to all SBC End Offices in the local exchange area where LEVEL 3 Offers Service. LEVEL 3 shall route appropriate traffic (i.e. only traffic to SBC-13STATE End Offices that subtend that Tandem) to the respective SBC-13STATE Tandems on the trunk groups defined below. SBC-13STATE shall route appropriate traffic to LEVEL 3' switches on the trunk groups defined below.

- 4.3 Reserved for future use
- 4.4 Direct End Office trunks terminate traffic from a **LEVEL 3** switch to an **SBC-13STATE** End Office and are not switched at a Tandem location. The Parties shall establish a two-way Direct End Office trunk group (except in **SBC-CONNECTICUT** where it shall be one-way) when actual or projected End Office traffic requires twenty-four (24) or more Local Interconnection Trunks in a Trunk Group or when no Local Only, Local/IntraLATA or Local/Access Tandem Switch is present in the local exchange. Overflow from either end of the Direct End Office trunk group will be alternate routed to the appropriate Tandem.
- 4.4.1 Direct End Office trunks terminate traffic from a **LEVEL 3** switch to an **SBC-13STATE** End Office.
- 4.4.2 The Parties will exert commercially reasonable efforts to achieve and maintain a network architecture within a Tandem serving area such that the DEOT does not fall below 80% of the total number of trunks that **LEVEL 3** has in service in the Tandem serving areas for two consecutive months. This should be achieved within 6 months of new interconnection in a Tandem serving area or within 3 months for existing interconnections. To determine the 80% DEOT to Tandem trunks threshold, the total number of DEOTs will be divided by the total number of trunks **LEVEL 3** has in use in the Tandem serving area where **LEVEL 3** is interconnected.
- 4.5 All traffic received by **SBC-13STATE** on the direct End Office trunk group from **LEVEL 3** must terminate in the End Office, i.e. no Tandem switching will be performed in the End Office unless SBC does so for itself or for any other party. Where End Office functionality is provided in a remote End Office of a host/remote switch configuration, the Interconnection for that remote End Office is only available at the host switch unless SBC has provisioned such capability in the remote switch. The number of originating telephone number digits to be received by the **SBC-13STATE** End Office shall be mutually agreed upon by the Parties. This trunk group shall be two-way.
- 4.6 Trunk Configuration
- 4.6.1 Trunk Configuration – **SBC SOUTHWEST REGION 5-STATE**, **SBC MIDWEST REGION 5-STATE** and **SBC CONNECTICUT**
- 4.6.1.1 Where available and upon the request of the other Party, each Party shall cooperate to ensure that its trunk groups are configured utilizing the Bipolar 8 Zero Substitution Extended Super Frame (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.

- 4.6.1.2 The Lucent 1AESS switch is incapable of handling 64CCC traffic. Therefore, all trunk groups established to the 1AESS switches must use Alternate Mark Inversion (AMI).

4.6.2 Trunk Configuration – **SBC CALIFORNIA** and **SBC NEVADA**

- 4.6.2.1 When Interconnecting at **SBC CALIFORNIA/SBC NEVADA**'s digital End Offices, the Parties have a preference for use of Bipolar 8 Zero Substitution Extended Super Frame (B8ZS ESF) two-way trunks for all traffic between their networks. Where available, such trunk equipment will be used for Local Interconnection trunk groups. Where AMI trunks are used, either Party may request upgrade to B8ZS ESF when such equipment is available.

- 4.6.2.2 When Interconnecting at **SBC CALIFORNIA**'s DMS Tandem(s), 64CCC data and voice traffic may be combined on the same B8ZF ESF facilities and 2-way trunk group. 64CCC data and voice traffic must be separate and not combined at **SBC CALIFORNIA**'s 4E Tandems. When **LEVEL 3** establishes new trunk groups to carry combined voice and data traffic from **SBC CALIFORNIA**'s DMS Tandems, **LEVEL 3** may do so where facilities and equipment exist. Where separate voice and data Interconnection trunking already exists **LEVEL 3** may transition to combined voice and data trunking as a major project, subject to mutual agreement between **LEVEL 3** and **SBC CALIFORNIA**, which agreement will include consideration of the CLEC handbook on **SBC CALIFORNIA**'s CLEC website. In all cases, **LEVEL 3** will be required to disconnect existing voice-only trunk groups as existing 64CCC trunk groups are augmented to carry both voice and data traffic. For both the combined and the segregated voice and data trunk groups, where additional equipment is required, such equipment will be obtained, engineered, and installed on the same basis and with the same intervals as any similar growth job which **SBC CALIFORNIA** does for itself, any other CLEC or an IXC, **LEVEL 3**'s, or itself for 64CCC trunks.

5. TRUNK GROUPS

- 5.1 The following trunk groups shall be used to exchange various types of traffic between **LEVEL 3** and **SBC-13STATE**.
- 5.2 **SBC SOUTHWEST REGION 5-STATE** Local Interconnection Trunk Group(s) in each Local Exchange Area: where Level 3 Offers Service
- 5.2.1 A Two-way Local Only Trunk Group(s) shall be established between **LEVEL 3**'s switch and each **SBC SOUTHWEST REGION 5-STATE** Local Only Tandem Switch in the local exchange area.

- 5.2.2 A two-way Local Interconnection Trunk Group(s) shall be established between LEVEL 3 switch and each SBC SOUTHWEST REGION 5-STATE Local/IntraLATA Tandem Switch or Local/Access Tandem Switch in the local exchange area.
- 5.2.3 SBC SOUTHWEST REGION 5-STATE may initiate one-way or two-way IntraLATA trunk groups to LEVEL 3 where required to provide trunk switch port relief in SBC SOUTHWEST REGION 5-STATE Tandems when a community of interest is outside the local exchange area in which LEVEL 3 is interconnected.
- 5.2.4 Where traffic from LEVEL 3's switch to an SBC SOUTHWEST REGION 5-STATE End Office Switch exceeds 24 trunks in an average time consistent busy hour, a Local Interconnection Trunk Group shall also be established to the SOUTHWEST REGION 5-STATE End Office Switch as described in Sections 4.4 and 4.5.
- 5.2.5 A Local Interconnection Trunk Group shall be established from LEVEL 3's switch to each SBC SOUTHWEST REGION 5-STATE End Office Switch in a local exchange area that has no Local Only Tandem Switch, Local/IntraLATA Tandem Switch or Local/Access Tandem Switch.
- 5.2.6 When SBC SOUTHWEST REGION 5-STATE has a separate Local Only Tandem Switch in the local exchange area and a Local/IntraLATA, Local/Access, and/or Access Tandem Switch that serves the same local exchange area, a two-way trunk group shall be established to the SBC SOUTHWEST REGION 5-STATE Local/IntraLATA, Local/Access, or Access Tandem Switch. In addition, a two-way Local Only Trunk Group shall be established from the LEVEL 3 switch to the SBC SOUTHWEST REGION 5-STATE Local Only Tandem switch.
- 5.2.7 When SBC SOUTHWEST REGION 5-STATE has a Local/Access Tandem Switch in a local exchange area, a two-way Local Interconnection Trunk Group shall be established.
- 5.2.8 When SBC SOUTHWEST REGION 5-STATE has more than one combined Local/Access Tandem Switch in a local exchange area, a two-way Local Interconnection Trunk Group shall be established to each SBC SOUTHWEST REGION 5-STATE Local/AccessTandem Switch that the Parties may mutually agree upon.

- 5.2.9 When SBC SOUTHWEST REGION 5-STATE has more than one Local/Access Tandem Switch combined local/Access Tandem in a local exchange area, a two-way Local Interconnection Trunk Group shall be established to each SBC SOUTHWEST REGION 5-STATE Local/Access Tandem Switch(es) that the Parties may mutually agree upon.
- 5.3 Local Interconnection Trunk Group(s) in each LATA: SBC MIDWEST REGION 5-STATE, SBC CONNECTICUT, SBC CALIFORNIA and SBC NEVADA
- 5.3.1 Tandem Trunking - Single Tandem LATAs
- 5.3.1.1 Where SBC CALIFORNIA, SBC NEVADA or SBC MIDWEST REGION 5-STATE has a single Local/IntraLATA, Local/Access Tandem or Access Tandem Switch in a LATA, the Parties shall establish a single Local Interconnection Trunk Group for calls destined to or from all SBC End Offices that subtend the Tandem within that LATA.
- 5.3.2 Tandem Trunking – Multiple Tandem LATAs
- 5.3.2.1 Where SBC CALIFORNIA, SBC NEVADA, SBC CONNECTICUT or SBC MIDWEST REGION 5-STATE has more than one Access Tandem Switch and/or Local/IntraLATA Tandem Switch in a LATA, the Parties shall establish a single Local Interconnection Trunk Group at every SBC CALIFORNIA, SBC NEVADA, SBC CONNECTICUT or SBC MIDWEST REGION 5-STATE Tandem(s) where LEVEL 3 Offers Service within the area served by that tandem for calls destined to or from all SBC End Offices that subtend each Tandem in the LATA.
- 5.3.3 Direct End Office Trunking
- 5.3.3.1 The Parties shall establish direct End Office primary high usage Local Interconnection Trunk Groups for the exchange of traffic where actual or projected traffic demand exceeds one DS1's worth of traffic for three (3) consecutive months as measured during the busy hour.
- 5.4 Meet Point Trunk Group: SBC-13STATE
- 5.4.1 Meet Point Trunk Groups will be established for the transmission and routing of traffic between LEVEL 3's End Users and Interexchange Carriers via SBC-13STATE Access or Local/Access Tandem Switches. Traffic sent to or received from Interexchange Carriers shall be transported between LEVEL 3 and the SBC-13STATE Access Tandem Switch or Local/Access Tandem Switch over a Meet Point Trunk Group.

- 5.4.2 Meet Point Trunk Groups shall be set up as two-way and will utilize SS7 signaling, except multi-frequency (“MF”) signaling will be used on a separate Meet Point Trunk Group to complete originating calls to switched access customers that use MF FGD signaling protocol.
- 5.4.3 When SBC-13STATE has more than one Local/Access Tandem or Access Tandem Switch in a local exchange area or LATA, LEVEL 3 need only establish Meet Point Trunk Groups to those tandems where LEVEL 3 elects to home its NXX code(s) in the LERG.
- 5.4.4 In SBC-13STATE where there is more than one Local/Access Tandem or Access Tandem Switch in a LATA, and LEVEL 3 had previously established a Meet Point Trunk Group to a SBC-13STATE Local/Access Tandem or Access Tandem Switch and a constrained Local/Access Tandem or Access Tandem Switch condition exist as to such Tandems, the Parties agree to develop a mutually acceptable plan to establish a Meet Point Trunk Group to relieve the constrained tandem condition.
- 5.4.5 FOR SBC CALIFORNIA ONLY: LEVEL 3 will home new codes serving a particular community on the Tandem serving that community, as defined in SCHEDULE CAL.P.U.C. NO. 175—T, Section 6.7.3, Tandem Access Sectorization (TAS). LEVEL 3 is not required, however, to home codes by the sector designations. LEVEL 3 also agrees to locate at least one Local Routing Number (LRN) per home Tandem if LEVEL 3 ports any telephone numbers to its network from a community currently homing on that Tandem.
- 5.4.6 SBC-13STATE: For each NXX code used by either Party, the Party to whom the NXX is assigned by the relevant numbering administrator is responsible for the network facilities (whether owned or leased) used to actively provide, in part, local Telecommunications Service within the NXX code.
- 5.4.7 SBC-13STATE will not block traffic delivered to any SBC-13STATE Tandem for completion on LEVEL 3's network or delivered from LEVEL 3 to SBC-13STATE for completion on SBC-13STATE's network. The Parties understand and agree that Meet Point trunking arrangements are available and functional only to/from switched access customers who directly connect with any SBC-13STATE Local Access Tandem or Access Tandem Switch that LEVEL 3 subtends in each LATA. In no event will SBC-13STATE be required to switch such traffic through more than one Tandem for connection to/from switched access customers. SBC-13STATE shall have no responsibility to ensure that any switched access customer will accept traffic that LEVEL 3 directs to the switched access customer when that customer has refused to accept such traffic.

- 5.4.8 **LEVEL 3** shall provide and **SBC-13STATE** shall pass all SS7 signaling information including, without limitation, charge number, and originating line information ("OLI"). For terminating Circuit Switched Traffic, such as traffic exchanged over FGD trunks, **SBC-13STATE** will pass all SS7 signaling information including, without limitation, and CPN if it receives CPN from FGD carriers. All privacy indicators will be honored. Where available, each Party shall pass or provide network signaling information such as transit network selection ("TNS") parameter, carrier identification codes ("CIC") (CCS platform) and CIC/OZZ information (non-SS7 environment) wherever such information is needed for call routing or billing. The Parties will follow all OBF adopted or other mutually agreeable standards pertaining to TNS and CIC/OZZ codes.
- 5.5 800/(8YY) Traffic: **SBC-13STATE**
- 5.5.1 If Either Party chooses the Other Party to handle 800/(8YY) database queries from its switches, all **LEVEL 3** originating 800/(8YY) traffic may be routed over the Meet Point Trunk Group except that to the extent that an 8YY originated number is local to the point of origination that call may be routed over a local trunk group. This traffic will include a combination of both Interexchange Carrier (IXC), 800/(8YY) service and **LEVEL 3** 800/(8YY) service that will be identified and segregated by carrier through the database query handled through the **SBC-13STATE** Tandem switch.
- 5.5.2 All originating Toll Free Service (800/8YY) calls for which **LEVEL 3** requests that **SBC-13STATE** perform the Service Switching Point ("SSP") function (e.g., perform the database query) shall be delivered using GR-394 format over the Meet Point Trunk Group. Carrier Code "0110" and Circuit Code (to be determined for each LATA) shall be used for all such calls.
- 5.5.3 **LEVEL 3** may handle its own 800/8YY database queries from its switch. If so, **LEVEL 3** will determine the nature (local/intraLATA/interLATA) of the 800/8YY call based on the response from the database. If the query determines that the call is a local or IntraLATA 800/8YY number, **LEVEL 3** will route the post-query local or IntraLATA converted ten-digit local number to **SBC-13STATE** over the Local Interconnection Trunk Group. In such case **LEVEL 3** is to provide an 800/8YY billing record when appropriate. 8YY calls to numbers that are local to the point where the traffic is handed off will be rated as local. If the query reveals the call is an InterLATA 800/8YY number, **LEVEL 3** will route the post-query inter-LATA call (800/8YY number) directly from its switch for carriers Interconnected with its network or over the Meet Point Trunk Group to carriers not directly connected to its network but are connected to **SBC-13STATE**'s Local/Access Tandem or Access Tandem or its equivalent. Each Party will route calls to the other party over the appropriate trunk groups within the LATA in which the calls originate.

- 5.5.4 All post-query Toll Free Service (800/8YY) calls for which **LEVEL 3** performs the SSP function, if delivered to **SBC-13STATE** shall be delivered using GR-394 or other mutually agreeable format over the Meet Point Trunk Group or other designated Trunk Group for Circuit-Switched calls destined to IXCs. All post-query Toll Free Service (800/8YY) calls for which **LEVEL 3** performs the SSP function, if delivered to **SBC-13STATE** shall be delivered using the GR-317 format over the Local Interconnection Trunk Group for delivery to SBC End Offices directly subtending the Tandem.
- 5.6 E911 Trunk Group
- 5.6.1 A dedicated trunk group for each NPA shall be established to each appropriate E911 switch within the local exchange area or LATA in which **LEVEL 3** offers exchange service. **LEVEL 3** will have administrative control for the purpose of issuing ASRs on this one-way trunk group. This trunk group shall be set up as a one-way outgoing only and will utilize MF CAMA signaling or, where available, SS7 signaling. Where the parties utilize SS7 signaling and the E911 network has the technology available, only one E911 trunk group shall be established to handle multiple NPAs within the local exchange area or LATA. If the E911 network does not have the appropriate technology available, a SS7 trunk group shall be established for each NPA in the local exchange area or LATA. **LEVEL 3** shall provide a minimum of two (2) one-way outgoing channels on E911 trunks dedicated for originating E911 emergency service calls from the Point of Interconnection (POI) to the **SBC-13STATE** E911 switch.
- 5.6.2 In **SBC CONNECTICUT** only, **LEVEL 3** will comply with the CT DPUC directives regarding the E911 trunk groups. The current directive requires **LEVEL 3** to establish three dedicated separate trunk groups for each Connecticut NPA, from its switch to each of the Connecticut E911 tandems. For each NPA, one trunk group using SS7 signaling will go to the Primary E911 tandem. A second trunk group using SS7 will go to the Secondary E911 tandem. The third trunk group will have MF CAMA signaling and will go to the Primary E911 tandem and serve as a backup. These trunk groups shall be set up as a one-way outgoing only by **LEVEL 3**. **LEVEL 3** will have administrative control for the purpose of issuing ASRs.
- 5.6.3 **LEVEL 3** and **SBC-13STATE** will cooperate to promptly test all 9-1-1 trunks and facilities between **LEVEL 3** network and the **SBC-13STATE** 9-1-1 Tandem to assure proper functioning of 9-1-1 service. **LEVEL 3** will not turn-up live traffic until successful testing is completed by both Parties and therefore **SBC-13STATE** and **LEVEL 3** both agree to use best efforts to complete testing as soon as is reasonably possible once **LEVEL 3** has requested interconnection at the **SBC-13STATE** 9-1-1 Tandem.
- 5.7 High Volume Call In (HVCI) / Mass Calling (Choke) Trunk Group: **SBC-12STATE**
- 5.7.1 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. **LEVEL 3** will have administrative control for the purpose of issuing ASRs on this trunk group. The Parties will not exchange live traffic until successful testing is completed by both Parties.

5.7.2 This group shall be sized as follows

Number of Access Lines Served	Number of Mass Calling Trunks
0 – 10,000	2
10,001 – 20,000	3
20,001 – 30,000	4
30,001 – 40,000	5
40,001 – 50,000	6
50,001 – 60,000	7
60,001 – 75,000	8
75,000 +	9 maximum

5.7.3 If **LEVEL 3** should acquire an HVCI/Mass Calling customer, *e.g.*, a radio station, **LEVEL 3** shall notify **SBC-12STATE** at least sixty (60) days in advance of the need to establish a one-way outgoing SS7 or MF trunk group from the **SBC-12STATE** HVCI/Mass Calling Serving Office to **LEVEL 3**'s customer's serving office. **LEVEL 3** will have administrative control for the purpose of issuing ASRs on this one-way trunk group.

5.7.4 If **LEVEL 3** finds it necessary to issue a new choke telephone number to a new or existing HVCI/Mass Calling customer, **LEVEL 3** may request a meeting to coordinate with **SBC-12STATE** the assignment of HVCI/Mass Calling telephone number from the existing choke NXX. In the event that **LEVEL 3** establishes a new choke NXX, **LEVEL 3** may notify **SBC-12STATE** a minimum of ninety (90) days prior to deployment of the new HVCI/Mass Calling NXX. **SBC-12STATE** will perform the necessary translations in its End Offices and Tandem(s) and **LEVEL 3** will issue ASRs to establish a one-way outgoing SS7 or MF trunk group from the **SBC-12STATE** Public Response HVCI/Mass Calling Network Access Tandem to **LEVEL 3**'s choke serving office.

- 5.7.5 In **SBC 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 customers or in situations such as those described in Section 36 Network Maintenance and Management of the General Terms and Conditions.
- 5.8 Operator Services/Directory Assistance Trunk Group(s)
- 5.8.1 If **SBC-13STATE** agrees to provide Inward Assistance Operator Services for **LEVEL 3**, please see section 4.1 of Appendix INW for the trunking requirements to provide this service.
- 5.8.2 If **SBC-13STATE** agrees through a separate appendix or contract to provide Directory Assistance and/or Operator Services for **LEVEL 3** the following trunk groups are required:
- 5.8.2.1 Directory Assistance (DA)
- 5.8.2.1.1 **LEVEL 3** may contract for DA services only. A segregated trunk group for these services will be required to the appropriate **SBC-13STATE** OPERATOR SERVICES Tandem in the LATA for the NPA **LEVEL 3** wishes to serve. This trunk group is set up as one-way outgoing only and utilizes Modified Operator Services Signaling (2 Digit Automatic Number Identification (ANI)). **LEVEL 3** will have administrative control for the purpose of issuing ASR’s on this one-way trunk group.
- 5.8.2.2 Directory Assistance Call Completion (DACC)
- 5.8.2.2.1 Where **LEVEL 3** contracts for DA services SBC will also permit it to contract for DACC. This requires a segregated one-way trunk group to each **SBC-13STATE** OPERATOR SERVICES Tandem within the LATA for the combined DA and DACC traffic. This trunk group is set up as one-way outgoing only and utilizes Modified Operator Services Signaling (2 Digit ANI). **LEVEL 3** will have administrative control for the purpose of issuing ASR’s on this one-way trunk group.
- 5.8.2.3 Busy Line Verification/Emergency Interrupt (BLV/EI)
- 5.8.2.3.1 When **SBC-13STATE**’s operator is under contract to verify the busy status of **LEVEL 3** End Users, **SBC-**

13STATE will utilize a segregated one-way with MF signaling trunk group from SBC-13STATE's Operator Services Tandem to LEVEL 3 switch. LEVEL 3 will have administrative control for the purpose of issuing ASR's on this one-way trunk group.

5.8.2.4 Operator Assistance (0+, 0-)

5.8.2.4.1 This service requires a one-way trunk group from LEVEL 3 switch to SBC-13STATE's OPERATOR SERVICES Tandem. Two types of trunk groups may be utilized. If the trunk group transports DA/DACC, the trunk group will be designated with the appropriate traffic use code and modifier. If DA is not required or is transported on a segregated trunk group, then the group will be designated with a different appropriate traffic use code and modifier. Modified Operator Services Signaling (2 Digit ANI) will be required on the trunk group. LEVEL 3 will have administrative control for the purpose of issuing ASR's on this one-way trunk group.

5.8.2.5 Digit-Exchange Access Operator Services Signaling

5.8.2.5.1 LEVEL 3 will employ Exchange Access Operator Services Signaling (EAOSS) from the equal access End Offices (EAEO) to the OPERATOR SERVICES switch that are equipped to accept 10 Digit Signaling for Automatic Number Identification (ANI).

5.8.2.6 OS QUESTIONNAIRE

5.8.2.6.1 If LEVEL 3 chooses SBC-13STATE to provide either OS and/or DA, then LEVEL 3 agrees to accurately complete the OS Questionnaire prior to submitting ASRs for OS and DA trunks.

6. FORECASTING RESPONSIBILITIES: SBC-13STATE

6.1 LEVEL 3 agrees to provide an initial forecast for establishing the initial Interconnection facilities. SBC-13STATE shall review this forecast and if it has any additional information that will change the forecast it shall provide this information to LEVEL 3. Subsequent forecasts shall be provided on a semi-annual basis, not later than January 1 and July 1. This forecast should include yearly forecasted trunk quantities for all appropriate trunk groups described in this Appendix for a minimum of three years. 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.
- 6.2 The semi-annual forecasts shall include:
- 6.2.1 Yearly forecasted trunk quantities (which include measurements that reflect actual Tandem Local Interconnection Trunk Groups and Meet Point Trunk Groups and End Office Local Interconnection trunks), for a minimum of three (current plus 2 future) years; and
 - 6.2.2 A description of major network projects anticipated for the following six months. Major network projects include trunking or network rearrangements, shifts in anticipated traffic patterns, orders greater than four (4) DS1's, or other activities that are reflected by a significant increase or decrease in trunking demand for the following forecasting period.
 - 6.2.3 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 mutually agreed to by the Parties. Parties shall make all reasonable efforts and cooperate in good faith to develop alternative solutions to accommodate these orders.
- 6.3 **LEVEL 3** shall be responsible for forecasting two-way trunk groups. **SBC-13STATE** shall be responsible for forecasting and servicing the one way trunk groups terminating to **LEVEL 3** and **LEVEL 3** shall be responsible for forecasting and servicing the one way trunk groups terminating to **SBC-13STATE**, unless otherwise specified in this Appendix. Standard trunk traffic engineering methods will be used by the parties as described in Bell Communications Research, Inc. (TELCORDIA TECHNOLOGIES) document SR TAP 000191, Trunk Traffic Engineering Concepts and Applications.
- 6.4 If forecast quantities are in dispute, the Parties shall meet 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: SBC-13STATE**
- 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 (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).

TABLE 1

<u>Trunk Group Type</u>	<u>Design Blocking Objective</u>
Local Tandem	1%
Local Direct End Office (Primary High)	ECCS*
Local Direct End Office (Final)	2%
IntraLATA	1%
Local/IntraLATA	1%
InterLATA (Meet Point) Tandem	0.5%
911	1%
Operator Services (DA/DACC)	1%
Operator Services (0+, 0-)	1%
Busy Line Verification-Inward Only	1%

*During implementation the Parties will mutually agree on an Economic Centum Call Seconds (ECCS) or some other means for the sizing of this trunk group.

8. TRUNK SERVICING: SBC-13STATE

- 8.1 Orders between the Parties to establish, add, change or disconnect trunks shall be processed by using an Access Service Request (ASR). **LEVEL 3** will have administrative control for the purpose of issuing ASR's on two-way trunk groups. In **SBC CONNECTICUT** where one-way trunks will be provisioned, **SBC CONNECTICUT** will issue ASRs for trunk groups for traffic that originates in **SBC-13STATE** and terminates to **LEVEL 3**. The Parties agree that neither Party shall alter trunk sizing without first conferring with the other party.
- 8.2 Both Parties will jointly manage the capacity of Local Interconnection Trunk Groups. Both Parties may send a Trunk Group Service Request (TGSR) to the other Party to trigger changes to the Local Interconnection Trunk Groups based on capacity assessment. The TGSR is a standard industry support interface developed by the Ordering and Billing Forum of the Carrier liaison Committee of the Alliance for Telecommunications Solutions (ATIS) organization. TELCORDIA TECHNOLOGIES Special Report STS000316 describes the format and use of the TGSR. Contact TELCORDIA TECHNOLOGIES at 1-800-521-2673 regarding the documentation availability and use of this form.
- 8.3 Utilization: Utilization shall be defined as Trunks Required as a percentage of Trunks In Service
- 8.3.1 In A Blocking Situation (Over-utilization)

- 8.3.1.1 In a blocking situation LEVEL 3 is responsible for issuing an ASR on all two-way trunk groups and one-way LEVEL 3 originating trunk groups to reduce measured blocking to design objective blocking levels based on analysis of trunk group data. If an ASR is not issued, SBC-13STATE will issue a TSGR. LEVEL 3 will issue an ASR within three (3) days after receipt and review of the TSGR, LEVEL 3 will note "Service Affecting" On the ASR.
- 8.3.1.2 In a blocking situation SBC-13STATE is responsible for issuing an ASR on one-way SBC-13STATE originating trunk groups to reduce measured blocking to design objective blocking levels based on analysis of trunk group data. If an ASR is not issued, LEVEL 3 will issue a TSGR. SBC-13STATE will issue an ASR within three (3) days after receipt and review of the TSGR. SBC-13 STATE will note "Service Affecting" on the ASR.
- 8.3.1.3 If an Alternate Final trunk group is at 75 % utilization, a TSGR is sent to LEVEL 3 for the final and all subtending High Usage's that are contributing any amount of overflow to the Final route. If a Direct Final Direct End Office trunk group is at 75% utilization, a TSGR is sent to LEVEL 3 with a recommendation to augment that trunk group.

8.3.2 Underutilization

- 8.3.2.1 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 will be handled in the following manner:
- 8.3.2.1.1 If a trunk group is under seventy-five percent (75%) of CCS capacity on a monthly average basis, for each month of any three (3) consecutive months period, either Party may request the issuance of an order to resize the trunk group, which shall be left with not less than 25 percent (25%) excess capacity. In all cases grade of service objectives shall be maintained.
- 8.3.2.1.2 If a Direct Final Direct EO trunk group in a serving area where there is no Local Tandem is under sixty-five percent (65%) of CCS capacity on a monthly average basis, for each month of any three (3) consecutive month period, either Party may request the issuance of an order to resize the trunk group, which shall be left with not less

than thirty-five percent (35%) excess capacity. In all cases grade of service objectives shall be maintained.

- 8.3.2.1.3 Either party may send a TGSR to the other Party to trigger changes to the Local Interconnection Trunk Groups based on capacity assessment. Upon receipt of a TGSR, the receiving Party will issue an ASR to the other Party within ten (10) business days after receipt of the TGSR.
 - 8.3.2.1.4 Upon review of the TGSR, if a Party does not agree with the resizing, the Parties will schedule a joint planning discussion within twenty (20) business days. The Parties will meet to resolve and mutually agree to the disposition of the TGSR.
 - 8.3.2.1.5 If **SBC-13STATE** does not receive an ASR, or if **LEVEL 3** does not respond to the TGSR by scheduling a joint discussion within the twenty (20) business day period, **SBC-13STATE** will attempt to contact **LEVEL 3** to schedule a joint planning discussion. If **LEVEL 3** will not agree to meet within an additional five (5) business days and present adequate reason for keeping trunks operational, **SBC-13STATE** will issue an ASR to resize the Interconnection trunks and facilities.
- 8.4 In all cases except a blocking situation, either Party upon receipt of a TGSR will issue an ASR to the other Party within twenty (20) business days after receipt of the TGSR.
- 8.4.1 Upon review of the TGSR, if a Party does not agree with the resizing, the Parties will schedule a joint planning discussion within twenty (20) business days. The Parties will meet to resolve and mutually agree to the disposition of the TGSR.
- 8.5 Projects require the coordination and execution of multiple orders or related activities between and among **SBC-13STATE** and **LEVEL 3** 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.
- 8.6 Due dates for the installation of Local Interconnection and Meet Point Trunk Groups covered by this Appendix shall be based on each of **SBC-13STATE**'s intrastate Switched Access intervals. If **LEVEL 3** is unable to or not ready to perform Acceptance Tests, or is unable to accept the trunks by the due date, **LEVEL 3** will provide a requested revised service due date that is no more than thirty (30) calendar

- days beyond the original service due date for which **SBC-13STATE** has issued a Firm Order Confirmation (“FOC”). If **LEVEL 3** requests a service due date change which exceeds the allowable service due date change period, the ASR must be canceled by **LEVEL 3**. Should **LEVEL 3** fail to cancel such an ASR, **SBC-13STATE** shall treat that ASR as though it had been canceled.
- 8.7 Trunk servicing responsibilities for Operator Services trunks used for stand-alone Operator Service or Directory Assistance are the sole responsibility of **LEVEL 3**.
- 8.8 **TRUNK SERVICING – SBC SOUTHWEST REGION 5-STATE** Exceptions
- 8.8.1 The Parties will process trunk service requests submitted via a properly completed ASR within ten (10) business days of receipt of such ASR unless defined as a major project, as stated in Section 8.6. Incoming orders will be screened by **SBC SOUTHWEST REGION 5-STATE** trunk engineering personnel for reasonableness based upon current utilization and/or consistency with forecasts. If the nature and necessity of an order requires determination, the ASR will be placed in held status, and a Joint Planning discussion conducted. Parties agree to expedite this discussion in order to minimally delay order processing. Extension of this review and discussion process beyond two days from ASR receipt will require the ordering Party to Supplement the order with proportionally adjusted Customer Desired Due Dates. Facilities must also be in place before trunk orders can be completed.
- 8.9 Projects-Tandem Rehomes/Switch Conversion/Major Network Projects
- 8.9.1 **SBC-13STATE** will advise **LEVEL 3** of all projects significantly affecting **LEVEL 3** trunking. Such projects may include Tandem Rehomes, Switch Conversions and other Major Network Changes. An Accessible Letter with project details will be issued at least six (6) months prior to the project due dates. **SBC-13 STATE** will follow with a Trunk Group Service Request (TGSR) approximately four (4) to six (6) months before the due date of the project. A separate TGSR will be issued for each **LEVEL 3** trunk group and will specify the required **LEVEL 3** ASR issue date. Failure to submit ASR(s) by the required date may result in **SBC-13STATE** ceasing to deliver traffic until the ASR(s) are received and processed.
9. **TRUNK DATA EXCHANGE: SBC-13STATE**
- 9.1 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 (20) business day study period. The Parties agree that twenty (20) business days is the study period duration objective. However, a study period on occasion may be less than twenty (20) business 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 utilizing the DIXC process via a Network Data Mover (NDM) or FTP computer to computer file transfer process. 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.
- 9.3 A trunk group utilization report (TIKI) is available at no charge upon request. The report is provided in a MS-Excel format.

10. NETWORK MANAGEMENT: SBC-13STATE

10.1 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. **LEVEL 3** and **SBC-13STATE** will immediately notify each other of any protective control action planned or executed.

10.2 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.

10.3 Mass Calling

- 10.3.1 **LEVEL 3** and **SBC-13STATE** shall cooperate and share pre-planning information regarding cross-network call-ins expected to generate large or focused temporary increases in call volumes.

11. OUT OF EXCHANGE TRAFFIC

11.1 Interconnection services are available in accordance with section 251(a)(1) of the Act for the purposes of exchanging traffic to/from a non-SBC incumbent exchange and consistent with the Appendix Out of Exchange Traffic attached to this Agreement.

12. SWITCHED ACCESS TRAFFIC.

12.1 For purposes of this Agreement only, Switched Access Traffic shall mean all traffic that originates from an end user physically located in one local exchange and delivered for termination to an end user physically located in a different local exchange (excluding traffic from exchanges sharing a common mandatory local calling area as defined in SBC-13STATE's local exchange tariffs on file with the applicable state commission) including, without limitation, any traffic that (i) terminates over a Party's circuit switch, including traffic from a service that originates over a circuit switch and uses Internet Protocol (IP) transport technology (regardless of whether only one provider uses IP transport or multiple providers are involved in providing IP transport) and/or (ii) originates from the end user's premises in IP format and is transmitted to the switch of a provider of voice communication applications or services when such switch utilizes IP technology and terminates over a Party's circuit switch. Notwithstanding anything to the contrary in this Agreement, all Switched Access Traffic shall be delivered to the terminating Party over feature group access trunks per the terminating Party's access tariff(s) and shall be subject to applicable intrastate and interstate switched access charges; provided, however, the following categories of Switched Access Traffic are not subject to the above stated requirement relating to routing over feature group access trunks:

- (i) IntraLATA toll Traffic or Optional EAS Traffic from a LEVEL 3 end user that obtains local dial tone from LEVEL 3 where LEVEL 3 is both the Section 251(b)(5) Traffic provider and the intraLATA toll provider,
- (ii) IntraLATA toll Traffic or Optional EAS Traffic from an SBC end user that obtains local dial tone from SBC where SBC is both the Section 251(b)(5) Traffic provider and the intraLATA toll provider;
- (iii) Switched Access Traffic delivered to SBC from an Interexchange Carrier (IXC) where the terminating number is ported to another CLEC and the IXC fails to perform the Local Number Portability (LNP) query; and/or
- (iv) Switched Access Traffic delivered to either Party from a third party competitive local exchange carrier over interconnection trunk groups carrying Section 251(b)(5) Traffic and ISP-Bound Traffic (hereinafter referred to as "Local Interconnection Trunk Groups") destined to the other Party.

Notwithstanding anything to the contrary in this Agreement, each Party reserves its rights, remedies, and arguments relating to the application of switched access charges for traffic exchanged by the Parties prior to the Effective Date of this Agreement and described in the FCC's Order issued in the Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services Exempt from Access Charges, WC Docket No. 01-361(Released April 21, 2004).

- 12.2 In the limited circumstances in which a third party competitive local exchange carrier delivers Switched Access Traffic as described in Section 12.1 (iv) above to either Party over Local Interconnection Trunk Groups, such Party may deliver such Switched Access Traffic to the terminating Party over Local Interconnection Trunk Groups. If it is determined that such traffic has been delivered over Local Interconnection Trunk Groups, the terminating Party may object to the delivery of such traffic by providing written notice to the delivering Party pursuant to the notice provisions set forth in the General Terms and Conditions and request removal of such traffic. The Parties will work cooperatively to identify the traffic with the goal of removing such traffic from the Local Interconnection Trunk Groups. If the delivering Party has not removed or is unable to remove such Switched Access Traffic as described in Section 12.1(iv) above from the Local Interconnection Trunk Groups within sixty (60) days of receipt of notice from the other party, the Parties agree to jointly file a complaint or any other appropriate action with the applicable Commission to seek any necessary permission to remove the traffic from such interconnection trunks up to and including the right to block such traffic and to obtain compensation, if appropriate, from the third party competitive local exchange carrier delivering such traffic to the extent it is not blocked.