

APPENDIX NIM (NETWORK INTERCONNECTION METHODS)

TABLE OF CONTENTS

1. INTRODUCTION	236
2. NETWORK INTERCONNECTION ARCHITECTURE PLAN	238
3. METHODS OF INTERCONNECTION	239
4. RESPONSIBILITIES OF THE PARTIES.....	241
5. LEASING OF FACILITIES	241
6. INTENTIONALLY LEFT BLANK	242
7. INTENTIONALLY LEFT BLANK	242

APPENDIX NIM (NETWORK INTERCONNECTION METHODS)

1. INTRODUCTION

- 1.1 This Appendix sets forth the terms and conditions that Network Interconnection Methods (NIM) is provided by the applicable SBC Communications Inc. (SBC) owned Incumbent Local Exchange Carrier (ILEC) and CLEC. 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 pursuant to Section 251(c)(2) of the Act; provided, however, Interconnection may not be used solely for the purpose of originating a Party's own interexchange traffic.
- 1.2 SBC Communications Inc. (SBC) means the holding company which directly or indirectly owns the following ILECs: Illinois Bell Telephone Company d/b/a SBC Illinois, Indiana Bell Telephone Company Incorporated d/b/a SBC Indiana, Michigan Bell Telephone Company d/b/a SBC Michigan, Nevada Bell Telephone Company d/b/a SBC Nevada, The Ohio Bell Telephone Company d/b/a SBC Ohio, Pacific Bell Telephone Company d/b/a SBC California, The Southern New England Telephone Company d/b/a SBC Connecticut, Southwestern Bell Telephone, L.P. d/b/a SBC Arkansas, SBC Kansas, SBC Missouri, SBC Oklahoma and/or SBC Texas and/or Wisconsin Bell, Inc. d/b/a SBC Wisconsin.
- 1.3 SBC-2STATE - As used herein, SBC-2STATE means SBC CALIFORNIA and SBC NEVADA, the applicable SBC-owned ILEC(s) doing business in California and Nevada.
- 1.4 SBC-4STATE - As used herein, SBC-4STATE means Southwestern Bell Telephone, L.P. d/b/a SBC Arkansas, SBC Kansas, SBC Missouri, and SBC Oklahoma the applicable SBC-owned ILEC(s) doing business in Arkansas, Kansas, Missouri and Oklahoma.
- 1.5 SBC-7STATE - As used herein, SBC-7STATE means SBC SOUTHWEST REGION 5-STATE, SBC CALIFORNIA and SBC NEVADA, the applicable SBC-owned ILEC(s) doing business in Arkansas, California, Kansas, Missouri, Nevada, Oklahoma, and Texas.
- 1.6 SBC-8STATE - As used herein, SBC-8STATE means SBC SOUTHWEST REGION 5-STATE, SBC CALIFORNIA, SBC NEVADA, and SBC CONNECTICUT the applicable SBC-owned ILEC(s) doing business in Arkansas, California, Connecticut, Kansas, Missouri, Nevada, Oklahoma, and Texas.
- 1.7 SBC-10STATE - As used herein, SBC-10STATE means SBC SOUTHWEST REGION 5-STATE and SBC MIDWEST REGION 5-STATE an the applicable SBC-owned ILEC(s) doing business in Arkansas, Illinois, Indiana, Kansas, Michigan, Missouri, Ohio, Oklahoma, Texas, and Wisconsin.
- 1.8 SBC-12STATE - As used herein, SBC-12STATE means SBC SOUTHWEST REGION 5-STATE, SBC MIDWEST REGION 5-STATE and SBC-2STATE the applicable SBC-owned ILEC(s) doing business in Arkansas, California, Illinois, Indiana, Kansas, Michigan, Missouri, Nevada, Ohio, Oklahoma, Texas, and Wisconsin.
- 1.9 SBC-13STATE - As used herein, SBC-13STATE means SBC SOUTHWEST REGION 5-STATE, SBC MIDWEST REGION 5-STATE, SBC-2STATE and SBC CONNECTICUT the applicable SBC-owned ILEC(s) doing business in Arkansas, California, Connecticut, Illinois, Indiana, Kansas, Michigan, Missouri, Nevada, Ohio, Oklahoma, Texas, and Wisconsin.
- 1.10 SBC ARKANSAS - As used herein, SBC ARKANSAS means Southwestern Bell Telephone, L.P. d/b/a SBC Arkansas, the applicable SBC-owned ILEC doing business in Arkansas.
- 1.11 SBC CALIFORNIA – As used herein, SBC CALIFORNIA means Pacific Bell Telephone Company d/b/a SBC California, the applicable SBC-owned ILEC doing business in California.
- 1.12 SBC CONNECTICUT - As used herein, SBC CONNECTICUT means The Southern New England Telephone Company, the applicable above listed ILEC doing business in Connecticut.

- 1.13 SBC KANSAS - As used herein, SBC KANSAS means Southwestern Bell Telephone, L.P. d/b/a SBC Kansas, the applicable SBC-owned ILEC doing business in Kansas.
- 1.14 SBC ILLINOIS - As used herein, SBC ILLINOIS means Illinois Bell Telephone Company d/b/a SBC Illinois, the applicable SBC-owned ILEC doing business in Illinois.
- 1.15 SBC INDIANA - As used herein, SBC INDIANA means Indiana Bell Telephone Company Incorporated d/b/a SBC Indiana, the applicable SBC-owned ILEC doing business in Indiana.
- 1.16 SBC MICHIGAN - As used herein, SBC MICHIGAN means Michigan Bell Telephone Company d/b/a SBC Michigan, the applicable SBC-owned doing business in Michigan.
- 1.17 SBC MIDWEST REGION 5-STATE - As used herein, SBC MIDWEST REGION 5-STATE means Illinois Bell Telephone Company d/b/a SBC Illinois, Indiana Bell Telephone Company Incorporated d/b/a SBC Indiana, Michigan Bell Telephone Company d/b/a SBC Michigan, The Ohio Bell Telephone Company d/b/a SBC Ohio, and/or Wisconsin Bell, Inc. d/b/a SBC Wisconsin, the applicable SBC-owned ILEC(s) doing business in Illinois, Indiana, Michigan, Ohio, and Wisconsin.
- 1.18 SBC MISSOURI - As used herein, SBC MISSOURI means Southwestern Bell Telephone, L.P. d/b/a SBC Missouri, the applicable SBC-owned ILEC doing business in Missouri.
- 1.19 SBC NEVADA - As used herein, SBC NEVADA means Nevada Bell Telephone Company d/b/a SBC Nevada, the applicable SBC-owned ILEC doing business in Nevada.
- 1.20 SBC OHIO - As used herein, SBC OHIO means The Ohio Bell Telephone Company d/b/a SBC Ohio, the applicable SBC-owned ILEC doing business in Ohio.
- 1.21 SBC OKLAHOMA - As used herein, SBC OKLAHOMA means Southwestern Bell Telephone, L.P. d/b/a SBC Oklahoma, the applicable SBC-owned ILEC doing business in Oklahoma.
- 1.22 SBC SOUTHWEST REGION 5-STATE - As used herein, SBC SOUTHWEST REGION 5-STATE means Southwestern Bell Telephone, L.P. d/b/a SBC Arkansas, SBC Kansas, SBC Missouri, SBC Oklahoma and/or SBC Texas the applicable above listed ILEC(s) doing business in Arkansas, Kansas, Missouri, Oklahoma, and Texas.
- 1.23 SBC TEXAS – As used herein, SBC TEXAS means Southwestern Bell Telephone, L.P. d/b/a SBC Texas, the applicable SBC-owned ILEC doing business in Texas.
- 1.24 SBC WISCONSIN - As used herein, SBC WISCONSIN means Wisconsin Bell, Inc. d/b/a SBC Wisconsin, the applicable SBC-owned ILEC doing business in Wisconsin.
- 1.25 Network Interconnection Methods (NIMs) include, but are not limited to, Physical Collocation Interconnection; Virtual Collocation Interconnection; Leased Facilities Interconnection; Fiber Meet Interconnection; and other methods as mutually agreed to by the Parties. One or more of these methods may be used to effect the Interconnection.
 - 1.25.1 Trunking requirements associated with Interconnection are contained in Appendix ITR.
 - 1.25.2 The terms and conditions associated with access to Lawful Unbundled Network Elements (Lawful UNEs) are not found in Appendix NIM, but are contained in Appendix Lawful UNEs. SBC CONNECTICUT Unbundled Network Elements are offered via the Connecticut Access Tariff.
- 1.26 SBC-13STATE shall provide Interconnection for CLEC's facilities and equipment for the transmission and routing of telephone exchange service and exchange access, at a level of quality that is equal to that which SBC-13STATE provides itself, a subsidiary, an affiliate, or any other party to which SBC-13STATE provides Interconnection and on rates, terms and conditions that are just, reasonable and non-discriminatory.
- 1.27 The Parties shall effect an Interconnection that is efficient, fair and equitable with each party being financially responsible for approximately half of the Interconnection facilities or in any other manner that is mutually agreeable to the Parties.

2. NETWORK INTERCONNECTION ARCHITECTURE PLAN

- 2.1 ¹SBC-13STATE's network is partly comprised of End Office switches, Tandem switches that serve local only traffic (SBC SOUTHWEST REGION 5-STATE), Tandem switches that serve IntraLATA and InterLATA traffic, and Tandem switches that serve a combination of local, IntraLATA and InterLATA traffic. SBC-13STATE'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 will agree to a physical architecture plan for a specific Interconnection area. In all cases, however, CLEC shall be entitled to establish a single point in each LATA at which all traffic between the Parties that originates and/or terminates in that LATA may be exchanged. CLEC and SBC-13STATE agree to Interconnect their networks through existing and/or new Interconnection facilities between CLEC switch(es) and one technically feasible point on SBC-13STATE's network, which points include SBC-13STATE's End Office(s) and/or Tandem switch(es). The physical architecture plan will, at a minimum, include the location of CLEC's point(s) of presence in a LATA and/or switch(es) and SBC-13STATE's End Office switch(es) and/or Tandem switch(es) between which traffic may be exchanged and the facilities that will connect the two networks and which Party will provide (be financially responsible for) the Interconnection facilities. At the time of implementation in a given LATA the plan will be documented and signed by appropriate representatives of the Parties, indicating their mutual agreement to the physical architecture plan.
- 2.2 ²Points of Interconnection (POIs): A Point of Interconnection (POI) is a point within the SBC-13STATE network where the Parties deliver Section 251(b)(5)/IntraLATA Toll Traffic to each other. The POI also serves as a demarcation point between the facilities that each Party is responsible to provide.
- 2.3 A "Tandem Serving Area" or "TSA" is comprised of an SBC-13STATE tandem for Section 251(b)(5)/IntraLATA Toll Traffic as defined by the LERG, and all of the SBC-13STATE End Offices which subtend that tandem.
- 2.4 Types of Points of Interconnection
- 2.4.1 The Parties will interconnect their network facilities at a minimum of one CLEC designated Point of Interconnection (POI) within SBC 13-STATE's network in the LATA where CLEC Offers Service.
- 2.4.1.1 A "Single POI" is a single point of interconnection within a LATA on SBC 13-STATE's network that is established to interconnect SBC 13-STATE's network and CLEC's network for the exchange of Section 251(b)(5)/IntraLATA Toll Traffic.
- 2.4.1.2 The Parties agree that CLEC has the right to choose a Single POI or multiple POIs.
- 2.4.1.3 When CLEC has established a Single POI (or multiple POIs) in a LATA, CLEC agrees to establish an additional POI:
- (i) ³in any SBC 13-STATE TSA separate from any existing POI arrangement when traffic to/from that SBC 13-STATE TSA exceeds an OC12 at peak over three (3) consecutive months, or
- (ii) ⁴at an SBC 13-STATE End Office in a local calling area not served by an SBC 13-STATE tandem for Section 251(b)(5)/IntraLATA Toll Traffic when traffic to/from that local calling area exceeds an OC12 at peak over three (3) consecutive months.
- 2.4.1.4 ⁵The additional POI(s) will be established within 90 days of notification that the threshold has been met.
- 2.5 Each party will be financially responsible for providing all of the facilities and engineering for its network on its respective side of each POI.

¹ Issue 1

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⁴ Issue 1

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- 2.6 Except as specified above, if CLEC chooses to establish multiple POIs in a LATA, the Parties shall meet as often as necessary to determine the location(s) of such POIs.
- 2.7 ⁶Each Party is responsible for the facilities to its side of the negotiated POI(s). In establishing Interconnection in a LATA, CLEC may utilize any method of Interconnection described in this Appendix. Except to the extent that payment is specifically required from one Party to the other in Appendix: Reciprocal Compensation, each Party is responsible for the appropriate sizing, operation, and maintenance of all facilities on its side of each POI. The parties agree to provide sufficient facilities for the Local Interconnection Trunk Groups required for the exchange of traffic between CLEC and SBC-13STATE.
- 2.8 Either Party, must provide thirty (30) days written notice of any intent to change its own network architecture in a way that will affect the other Party's operations or payment obligations hereunder.
- 2.9 ⁷CLEC is financially responsible for the facilities that carry OS/DA, 911, mass calling and Meet-Point trunk groups as specified in Appendix ITR.
- 2.10 If CLEC has established Collocation in an SBC-13STATE End Office, any facilities to connect collocated equipment in such End Office with CLEC's network shall be the financial responsibility of CLEC.
- 2.11 Technical Interfaces
 - 2.11.1 The Interconnection facilities provided by each Party shall be formatted using either Alternate Mark Inversion (AMI) line code with Superframe format framing or Bipolar 8 Zero Signaling (B8ZS) with Extended Superframe format framing or any mutually agreeable line coding and framing.
 - 2.11.2 The preferred method for Interconnection shall be a Fiber Meet as defined below. In the event that electrical rather than optical handoffs are agreed to, such handoffs at the POI(s) will be at the DS1 or DS3 level, as warranted by traffic volume and other network engineering considerations. When a DS3 handoff is agreed to by the Parties, SBC-13STATE will provide any multiplexing required for DS1 facilities or trunking at their end and CLEC will provide any DS1 multiplexing required for facilities or trunking at their end, at no charge to the other Party for such multiplexing.

3. METHODS OF INTERCONNECTION

- 3.1 Physical Collocation Interconnection
 - 3.1.1 When CLEC provides its own facilities or uses the facilities of a 3rd party to a SBC-13STATE Tandem or End Office and wishes to place its own transport terminating equipment at that location, CLEC may Interconnect using the provisions of Physical Collocation as set forth in Appendix Physical Collocation or applicable state tariff.
- 3.2 Virtual Collocation Interconnection
 - 3.2.1 When CLEC provides its own facilities or uses the facilities of a 3rd party to a SBC-13STATE Tandem or End Office and wishes for SBC-13STATE to place transport terminating equipment at that location on the CLEC's behalf, it may Interconnect using the provisions of Virtual Collocation as set forth in Appendix Virtual Collocation. Virtual Collocation allows CLEC to choose the equipment vendor and does not require that CLEC be Physically Collocated.
- 3.3 ⁸Leased Facility Interconnection ("LFI")
 - 3.3.1 ⁹Where facilities are available, CLEC may lease facilities from SBC-13STATE as defined in Section 5 of this Appendix.
- 3.4 Fiber Meet

⁶ IC detailed matrix Charter Issue 2

⁷ Issue 3

⁸ Issue 6

⁹ Issue 6

- 3.4.1 ¹⁰CLEC shall be entitled to establish a Fiber Meet Interconnection between SBC-13STATE and CLEC at any technically feasible and commercially reasonable point between CLEC's premises and SBC-13STATE's network in a LATA. If SBC-13STATE disputes the technical feasibility and/or commercial reasonableness of a proposed Fiber Meet Interconnection, the dispute resolution provisions of General Terms and Conditions shall apply to such dispute.
- 3.4.2 ¹¹In a Fiber Meet, a single point-to-point linear chain SONET system must be utilized.
- 3.4.3 Neither Party will be 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.
- 3.4.4 Requirements for such Interconnection specifications will be defined in joint engineering planning sessions between the Parties.
- 3.4.5 ¹²In addition to the semi-annual trunk forecast process, discussed in Appendix ITR, discussions to provide relief to existing facilities can be initiated by either party. Actual system augmentations will be initiated only upon mutual agreement. Facilities will be planned for to accommodate the verified and mutually agreed upon trunk forecast.
- 3.4.6 Both Parties will negotiate a project service date and corresponding work schedule to construct relief facilities prior to facilities exhaust.
- 3.4.7 CLEC will provide fiber cable to the last entrance (or SBC-13STATE designated) manhole at the SBC-13STATE Tandem or SBC-13STATE End Office building. SBC-13STATE shall make all necessary preparations to receive and to allow and enable CLEC to deliver fiber optic facilities into that manhole. CLEC will provide a sufficient length of Fiber cable for SBC-13STATE to pull through the SBC-13STATE cable vault. CLEC shall deliver and maintain such strands wholly at its own expense up to the POI. SBC-13STATE shall take the fiber from the manhole and terminate it inside SBC-13STATE's office at the cable vault at SBC-13STATE's expense. In this case the POI shall be at the SBC-13STATE designated manhole location.
- 3.4.8 Intentionally Left Blank
- 3.4.9 The SBC-13STATE location includes all SBC-13STATE FOT, multiplexing and fiber required to terminate the optical signal provided from CLEC. This location is SBC-13STATE's responsibility to provision and maintain.
- 3.4.10 ¹³SBC-13STATE and CLEC 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 in capacity sufficient to provision and maintain all trunk groups to be carried over the fiber facility.
- 3.4.11 Each Party shall provide its own source for the synchronized timing of its FOT equipment.
- 3.4.12 CLEC and SBC-13STATE will mutually and reasonably agree on the capacity of the FOT(s) to be utilized based on equivalent DS1s or DS3s. 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 in section 4 of this document.
- 3.5 Other Interconnection Methods

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¹¹ Issue 4

¹² Issue 4

¹³ Issue 4

3.5.1 Other Interconnection methods that are technically feasible may be mutually agreed to by the Parties.

4. RESPONSIBILITIES OF THE PARTIES

- 4.1 ¹⁴For each Interconnection within an SBC-13STATE area, CLEC shall provide written notice to SBC-13STATE of the need to establish Interconnection in each (SBC SOUTHWEST REGION 5-STATE) LATA. (SBC CALIFORNIA, SBC NEVADA, SBC CONNECTICUT and SBC MIDWEST REGION 5-STATE). CLEC shall provide all information about CLEC's network that SBC-13STATE reasonably requires to establish Interconnection on forms acceptable to SBC-13STATE (as set forth in SBC's CLEC Handbook, published on the CLEC website.) Under no circumstances shall CLEC be responsible for providing information to SBC-13STATE about SBC-13STATE's own network, nor shall CLEC be required to provide information about its own network that is not reasonably required for purposes of designing and implementing an Interconnection arrangement.
- 4.2 Upon receipt of CLEC's notice to interconnect, the Parties shall schedule a meeting to negotiate and mutually agree on the network architecture (including trunking) to be documented as discussed in Section 2.1. The Interconnection activation date for an Interconnect shall be established based on then-existing force and load, the scope and complexity of the requested Interconnection and other relevant factors, but shall in no event be unreasonably delayed beyond the time reasonably necessary to establish the Interconnection.
- 4.3 Intentionally Left Blank
- 4.4 The Parties 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.
- 4.5 Facilities will be planned for in accordance with the trunk forecasts exchanged between the Parties as described in Appendix ITR.

5. ¹⁵LEASING OF FACILITIES

- 5.1 ¹⁶If SBC-13STATE offers entrance facilities or equivalent facilities/services out of either its interstate or intrastate tariffs, CLEC may obtain such facilities under tariff and use them for purposes of Interconnection. Such tariff offerings shall not be considered "Leased Facilities" hereunder but shall be deemed to be available separately and independently from this Agreement. If SBC-13STATE does not offer entrance facilities or equivalent facilities/services under tariff, then the Parties may agree that SBC-13STATE may provide CLEC with Leased Facilities for the purpose of Interconnection. SBC-13STATE's agreement to provide or provision of such Leased Facilities shall not affect either Party's position with respect to whether SBC-13STATE has any obligation to do so. The Parties have no agreement as to the costing or pricing methodologies that may or should apply to any such Leased Facilities. Should SBC-13STATE offer Leased Facilities under this section, it (I) will advise the CLEC in writing in advance of its proposed charges for Leased Facilities, and (II) will process the request only after SBC and CLEC have agreed on the charges for such facilities.
- 5.2 ¹⁷Upon SBC-13STATE's request, the CLEC will provide a written leased facility request that will specify the A- and Z-ends (CLLI codes, where known), equipment and multiplexing required and provide quantities requested. Subject to the treatment of tariffed services as stated in Section 5.1, requests for leasing of facilities for the purposes of Interconnection and any future augmentations are subject to facility availability at the time of the request, and applicable rates, terms and conditions will be determined at the time of the request.

¹⁴ Issue 5

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5.3 ¹⁸Subject to the treatment of tariffed services as stated in Section 5.1, requests by CLEC for leased facilities where facilities, equipment, or riser cable do not exist will be considered and SBC-13STATE may agree to provide facilities under a Bona Fide Request (BFR).

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