

SCHEDULE 9.2.6 SWITCHING

9.2.6 Switching.

9.2.6.1 Definition. The local switching capability to be provided on an unbundled basis pursuant to this Agreement is defined as set forth in FCC Rule 51.319. Pursuant to that Rule, ULS includes:

- 9.2.6.1.1 line-side facilities, which include the connection between a Loop and or Collocation termination at the Main Distribution Frame and a switch line card;
- 9.2.6.1.2 trunk-side facilities, which include the connection between trunk termination at a trunk-side cross- connect panel and a switch trunk card; and
- 9.2.6.1.3 all features, functions, and capabilities of the switch available from the specific port type (line side or trunk side port), which include:
 - 9.2.6.1.3.1 the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to ILEC customers, such as a telephone number, white page listing, and dial tone;
 - 9.2.6.1.3.2 access to OS/DA and 9-1-1; and
 - 9.2.6.1.3.3 The local switching element includes all vertical features that the switch is capable of providing, including customized routing functions, CLASS features, Centrex and any technically feasible customized routing functions.
 - 9.2.6.1.3.4 TCG may order and SBC ILLINOIS shall provision features (switch based) that the switch is capable of providing. SBC ILLINOIS will provide TCG with access to SBC ILLINOIS' service creation environment to allow TCG to design its own AIN-based services. TCG will request such access using the negotiation process found in 9.2.8.21.
- 9.2.6.1.4 Remote Switching Module functionality is included in the Local Switching function. The switching capabilities used will be based on the line side and trunk side features the Remote Switching Module supports, including all features that the remote module obtains from the host. The features that the remote terminal provides are based on the host switch capabilities.
- 9.2.6.1.5 Local Switching will also be capable of routing, (originating or terminating but not transporting) local, intraLATA, interLATA calls, and providing call features (e.g., call forwarding) and Centrex capabilities.

- 9.2.6.1.6 Local Switching also includes the ability to perform Customized Routing to enable TCG’s local Operator Service (OS) and/or Directory Assistance (DA), as well as TCG’s PIC’d toll traffic in a 2-PIC environment to be routed, at TCG’s option, from SBC ILLINOIS’ local end office to an alternate OS/DA platform designated by TCG. TCG will pay the appropriate customized routing charges.
- 9.2.6.1.7 Customized routing supplied by SBC ILLINOIS shall provide TCG with the capability of directing TCG’s local OS and DA traffic to its own operators and/or directory assistance agents or to those of a third party vendor SBC ILLINOIS will evaluate additional methods of customized routing of local and/or OS/DA traffic (including, but not limited to existing Feature Group D) trunks on a BFR basis. In any event, if local traffic is routed to TCG facilities obtained through SBC ILLINOIS Access Tariffs, TCG will continue to pay full access rates for these facilities. SBC ILLINOIS will provide the functionality and features within its local switch (LS) to route all TCG customer dialed 0+ local and 0- calls to the TCG designated trunk groups utilizing Modified Operator Service Signaling (MOSS). For Customized Routing, SBC ILLINOIS shall allow TCG the option of directing its customers’ local inter-switch traffic on a per switch basis to a Port or Ports other than the standard routing used by SBC ILLINOIS.
 - 9.2.6.1.7.1 Where physical network trunking rearrangement work is performed in the process of establishing customized routing trunk groups for migrating Operator and DA services to TCG, SBC ILLINOIS shall charge for performing the trunk rearrangements. Additional charges may be applicable for SBC to recover its costs in providing the customized routing for TCG, e.g. performing translation work and building routing tables specific to TCG's request. Charges under this Section shall be calculated pursuant to 252(d)(1).
 - 9.2.6.1.7.2 TCG may order custom routing from SBC ILLINOIS and SBC ILLINOIS will deploy custom routing within ten (10) business days after TCG's order for a particular switch is received. TCG may order custom routing with a maximum of fifty (50) switches per order. SBC ILLINOIS will implement all valid switch requests ("CLLIs") and reject the invalid requests on an individual CLI basis.

SBC ILLINOIS will implement custom routing for an individual switch according to the following schedule:

1-48 trunks	38 business days
49-96 trunks	40 business days
97-144 trunks	42 business days
145-193 trunks	48 business days

In any event, SBC ILLINOIS will complete the custom routing order no later than 60 business days from receipt of a valid order unless mutually agreed by the Parties.

- 9.2.6.1.8 TCG will be solely responsible for specifying the required custom routing (including code conversions and number translations) as well as the design of any dedicated transport associated with customized routing as it relates to customized routing as described in Section 9.2.6.1.7. SBC ILLINOIS will remain solely responsible for implementing the custom routing at SBC ILLINOIS' central offices, and for the design and engineering of any SBC ILLINOIS provided shared transport.
- 9.2.6.1.9 Dedicated transport may be purchased from SBC ILLINOIS or TCG may provide its own.
- 9.2.6.1.10 SBC ILLINOIS shall not impose any additional or other restrictions on TCG regarding the use of the unbundled local switching it purchases from SBC ILLINOIS provided such use does not result in demonstrable harm to either SBC ILLINOIS network or personnel, or service or other offerings, or those of any other telecommunications carrier.
- 9.2.6.1.11 Intentionally left blank
- 9.2.6.1.12 Vertical features, CLASS features, and other features resident in the ILEC switch providing the ULS port are available under ULS. Any features resident in the switch but not offered and priced in this Agreement may be requested on a Bona Fide Request basis.

9.2.6.2 Technical Requirements.

- 9.2.6.2.1 SBC ILLINOIS shall route local and toll calls to the appropriate trunk ports or line ports for call origination or termination utilizing SBC ILLINOIS' shared transport network, and at TCG's option SBC ILLINOIS will offer customized routing for unbundled switch line ports. All interexchange traffic will be routed to the interLATA (PIC) or intraLATA toll (LPIC) Interexchange Carrier, or via shared transport, selected for that ULS port. Customized routing will include but not be limited to the customized routing of inter-switch traffic on per switch basis to a Trunk port or ports other than the standard routing used by SBC ILLINOIS, and to the customized routing of local OS and DA calls, as well as TCG's PIC'ed/LPIC toll traffic in a 2-PIC environment as specified by TCG.
- 9.2.6.2.2 Intentionally Left Blank
- 9.2.6.2.3 SBC ILLINOIS shall provide custom routing at rates as identified in the Pricing Schedule.
- 9.2.6.2.4 Intentionally Left Blank
- 9.2.6.2.5 At TCG's option, SBC ILLINOIS shall route all local Directory Assistance calls dialed via 411 or 555-1212 by TCG Customers to the TCG Network. Otherwise, SBC ILLINOIS shall handle these calls on behalf of TCG and route the calls to SBC

ILLINOIS' directory assistance platform under the terms and conditions of the OS/DA Schedule in this agreement.

- 9.2.6.2.6 SBC ILLINOIS shall route all toll and InterLATA Directory Assistance dialed via (NPA) 555-1212, by TCG Customers, to the customer's PIC'ed carrier for toll and interLATA service respectively.
- 9.2.6.2.7 Intentionally Left Blank
- 9.2.6.2.8 Subject to TCG's BFR, SBC ILLINOIS shall perform code conversions to route all TCG customer dialed local and toll Directory Assistance calls to a TCG designated telephone number (i.e., xxx-xxx-xxxx) prior to delivery to the TCG Network. In the event that SBC ILLINOIS cannot perform this custom routing for any reason, SBC ILLINOIS will either place unconverted dialed calls on the TCG designated trunk group, or continue to provide TCG with unbundled Operator Services at TCG's request.
- 9.2.6.2.9 If customized routing is established, dialing capabilities described herein shall permit TCG Customers to dial the same telephone numbers to reach TCG Directory Assistance, or a TCG Operator that similarly-situated SBC ILLINOIS customers dial for reaching equivalent SBC ILLINOIS Directory Assistance and SBC ILLINOIS operators.
- 9.2.6.2.10 Intentionally Left Blank
- 9.2.6.2.11 Intentionally Left Blank
- 9.2.6.2.12 Where TCG purchases unbundled switching and SBC ILLINOIS provides TCG with access to SBC ILLINOIS' electronic interfaces to perform routine testing (e.g. Mechanized Loop Tests (MLT)), TCG will be allowed to perform MLT, issue trouble tickets, view status, and view trouble history on-line.
- Where TCG purchases unbundled switching and SBC ILLINOIS does not provide TCG with access to SBC ILLINOIS' electronic interfaces to perform routing testing (e.g. MLT), SBC ILLINOIS will perform such testing for TCG and additionally will issue trouble tickets, provide status, and provide trouble history to TCG.
- 9.2.6.2.13 SBC ILLINOIS shall repair, restore and maintain SBC ILLINOIS provided equipment that has produced trouble conditions using the same methods, procedures and timeframes used to restore similar SBC ILLINOIS equipment in a non-discriminatory manner.
- 9.2.6.2.14 SBC ILLINOIS shall control congestion points such as mass calling events, and network routing abnormalities, using appropriate network capabilities.

9.2.6.2.15 SBC ILLINOIS shall record potentially billable events, as applicable, involving usage of the Network Element, and send the appropriate recording data to TCG as outlined in Article 27 (Billing and Recording) of this Agreement.

9.2.6.2.16 Unbundled local switching will include 911 access in a nondiscriminatory manner.

9.2.6.2.17 SBC ILLINOIS shall provide nondiscriminatory access to switching service point (SSP) capabilities and signaling software to interconnect the signaling links destined to SBC ILLINOIS STPs.

9.2.6.2.18 TCG may request and SBC ILLINOIS will provide call blocking options (e.g., 900, 976) at parity with those provided to SBC ILLINOIS' own customers

9.2.6.3 Interface Requirements.

9.2.6.3.1 SBC ILLINOIS shall provide at a minimum the following unbundled Local Switching ports:

Analog basic (POTS)	line side, Loop start or ground start signaling
Analog Centrex	line side, Loop start or ground start signaling.
Analog PBX	line side, Loop start, or ground start signaling
Analog DID	trunk side, Loop signaling, associated with a PBX
DS1 (DID)	trunk side, associated with a PBX
DS1	trunk side
ISDN BRI	two circuit-switched b-channels (64 Kbits/s each) and one D-channel (16 Kbits/s)
ISDN PRI	twenty three circuit-switched b-channels (64 Kbits/s each) and one D-channel (64 Kbits/s)

9.2.6.3.2 Additional interfaces may be requested in accordance with the BFR Process, as set forth in Schedule 2.2 of this Agreement.

9.2.6.4 Tandem Switching.

9.2.6.4.1 Definition. Tandem Switching is defined as:

9.2.6.4.1.1 trunk-connect facilities, including but not limited to the connection between trunk termination at a cross-connect panel and a switch trunk card,

- 9.2.6.4.1.2 the basic switching function of connecting trunks to trunks; and
- 9.2.6.4.1.3 all technically feasible functions that are centralized in tandem switches (as distinguished from separate end-office switches), including but not limited to call recording, the routing of calls to operator services, and signaling conversion features.
- 9.2.6.4.2 The charges for Tandem Switching are reflected in the Pricing Schedule.
- 9.2.6.4.3 Technical Requirements
- 9.2.6.4.3.1 Tandem Switching shall have the same capabilities or equivalent capabilities as those described Telecordia GR-962-CORE. Where a capability is desired by TCG but is not specified by this TR, is not currently deployed in the SBC ILLINOIS Tandem (as a switch vendor orderable feature), or is not specifically identified in this Schedule, TCG will submit a custom request using the BFR process. As described in this TR, the requirements for Tandem Switching include, but are not limited to the following:
- 9.2.6.4.3.1.1 Tandem Switching shall provide signaling including MF, SS7 and any signaling conversions between these signaling formats to establish a tandem connection;
- 9.2.6.4.3.1.2 Tandem Switching shall provide screening and routing. Requests for screening or routing not currently deployed in the SBC ILLINOIS Tandem, TCG may submit a request in accordance with the BFR process;
- 9.2.6.4.3.1.3 Tandem Switching shall provide recording, where available, of billable events as described in the above-cited Technical Reference;
- 9.2.6.4.3.1.4 Tandem Switching shall provide access to Toll Free number portability database as described in Section 9.2.6.4.3.1 above;
- 9.2.6.4.3.1.5 Tandem Switching (if the Tandem is so equipped) shall accept all trunk interconnections discussed in (Physical Network Interconnection) Section of this Agreement (e.g., SS7, MF, DTMF, Dial Pulse, PRI-ISDN, DID, and CAMA-ANI (if appropriate for 911)). If the Tandem is not equipped with the capability desired, then TCG will request such capacity via the BFR process.
- 9.2.6.4.3.2 Intentionally left blank.
- 9.2.6.4.3.3 Tandem Switching shall preserve CLASS/LASS features and Caller ID as traffic is processed. Additional signaling information and requirements are provided in the Signaling and Signaling System 7 Sections of this Agreement.
- 9.2.6.4.3.4 Tandem Switching shall record billable events and send them to the destination supplied by TCG on the CLEC Profile. Billing requirements are specified in Article 27 (Billing and Recording) of this Agreement.

9.2.6.4.3.5 SBC ILLINOIS shall perform routine testing and fault isolation on the underlying switch that is providing Tandem Switching and all its interconnections. When requested by TCG, the results and reports of the testing shall be made immediately available to TCG.

9.2.6.4.3.6 SBC ILLINOIS shall maintain TCG's trunks and interconnections associated with Tandem Switching at least at parity to its own trunks and interconnections.

9.2.6.4.3.7 When requested by TCG, on a case-by-case basis, SBC ILLINOIS shall provide performance data regarding traffic characteristics or other measurable elements to TCG for review.

9.2.6.4.3.8 Tandem Switching shall control congestion using capabilities such as Automatic Congestion Control and Network Routing Overflow. Congestion control provided or imposed on TCG traffic shall be at parity with controls being provided or imposed on SBC ILLINOIS traffic (e.g., SBC ILLINOIS shall not block TCG traffic and leave its traffic unaffected or less affected).

9.2.6.4.3.9 The Local Switching and Tandem Switching functions may be combined in an office. If this is done, both Local Switching and Tandem switching shall provide all of the functionality required of each of those Network Elements in this Agreement.

9.2.6.4.4 Interface Requirements

9.2.6.4.4.1 SBC ILLINOIS shall provide all signaling necessary to provide Tandem Switching with no loss of feature functionality.

9.2.6.4.4.2 Tandem Switching shall accept trunks from TCG's switch for traffic that is originating from or terminating to a TCG end user that is transiting via SBC ILLINOIS network to interLATA or intraLATA carriers.

9.2.6.5 Packet Switching

9.2.6.5.1 Definition. Packet Switching is defined as the packet switching capability network element, as set forth in F.C.C Rule 51.319. Without limiting the foregoing, it includes the following. Packet Switching is defined as the basic packet switching function of routing or forwarding packets, frames, cells or other data units based on address or other routing information contained in the packets, frames, cells or other data units. Packet Switching also includes the Digital Subscriber Line Access Multiplexers (DSLAMs) functionality, including but not limited to:

- (i) the ability to terminate copper customer loops (which included both a low band voice channel and a high-band data channel, or solely a data channel);
- (ii) the ability to forward the voice channels, if present, to a circuit switch or multiple circuit switches;

- (iii) the ability to extract data units from the data channels on the loops; and
- (iv) the ability to combine data units from multiple loops onto one or more trunks connecting to a packet switch or packet switches.

9.2.6.5.2 SBC ILLINOIS shall be required to provide nondiscriminatory access to unbundled Packet Switching capability for use with unbundled Loops within the service area of an SBC ILLINOIS central office (a “Service Area”) only where each of the following conditions apply:

- (i) SBC ILLINOIS has deployed digital loop carrier systems, including but not limited to, integrated digital loop carrier or universal digital loop carrier systems anywhere within such Service Area; or has deployed any other system that does not enable TCG to obtain a continuous copper facility between the retail customer’s premises and SBC ILLINOIS central office; and
- (ii) There are no spare copper loops capable of supporting the xDSL services TCG seeks to offer; and
- (iii) SBC ILLINOIS has not permitted a requesting carrier to deploy a Digital Subscriber Line Access Multiplexer (DSLAM) at the remote terminal, pedestal or environmentally controlled vault or other interconnection point, nor has the requesting carrier obtained a virtual collocation arrangement at these subloop interconnection points as defined by 47 CFR 51.319(b); and
- (iv) SBC ILLINOIS has deployed packet switching capability for its own use.

9.2.6.5.3 All disputes arising under these provisions shall be resolved in accordance with the General Terms and Conditions – Dispute Resolution.